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Using Bioarchaeological Methods to Aid in Humanitarian Efforts concerning Undocumented Border Crossers at the United States/Mexico Border

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Using Bioarchaeological Methods to Aid in Humanitarian Efforts concerning Undocumented Border Crossers at the United States/Mexico Border

By

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Professor Sabrina C. Agarwal, Chair
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Abstract

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by

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Doctor of Philosophy in Anthropology

University of California, Berkeley

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Issues regarding Undocumented Border Crossers continue to remain an area of engagement and research among forensic anthropologists, specifically in the border states of Arizona, Texas, and California (Anderson and Spradley 2016). Work has focused primarily on the identification and repatriation of these individuals (Bartelink 2017:132–133; Gocha et al. 2018:144; Martínez et al. 2014:11; Reineke and Halstead 2017:52). While the identification of these individuals is and will continue to be important, it can be argued that the political, economic, and social issues prompting these migrations would be worthy of study (Bartelink 2017; Gocha et al. 2018, Martínez et al. 2014; Reineke and Halstead 2017). An area of more limited area of study are the structures of violence, both direct and indirect, that lead many of these individuals on the treacherous journey to cross the border, and their long-term effects on health. In continuing with this line of research, it is key to understand the socio-political context of why individuals and specific communities migrate, why the United States was chosen, and the biocultural outcomes of living in context.

This research looks at the at the skeletal, material culture, and ethnographic evidence of structural violence in Latin America, and how this leads to immigration. Structural violence can be seen in these various avenues and used in conjunction with one another in providing a better framework that is not necessarily driven by the researcher's interpretation but by the individuals who experienced this structural violence firsthand. This portion of the research will home in specifically on the material culture associated with crossing of the United States/Mexico border. Many, if not all the individuals crossing the United States/Mexico border, carry with them religious, sentimental, nutritional, or protective items. Each of these items may be indicators of the life the individuals are leaving behind, in combination with the one they are hoping to achieve in the United

States. The bigger picture here is that this crossing is long and dangerous, so whatever they decide to take with them must have some type of value or importance, be it for survival or emotional and physical support. This study offers a different perspective on the material culture associated with crossing the border in that it allows for the individuals to speak for themselves rather than have the researcher make their own interpretations.

Para mis padres

Dolores Diaz (Paloma) y Antonio Diaz

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time, but you all continued to love me and support me regardless of if I was able to be there for you all. Thank you for your support and understanding throughout all of these years. I know it takes its toll on a friendship, so your unwavering love means the world to me.

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CHAPTER 1 INTRODUCTION

Issues regarding Undocumented Border Crossers continue to remain an area of engagement and research among anthropologists, specifically forensic anthropologists, in the border states of Arizona, Texas, and California (Anderson and Spradley 2016). Work has focused primarily on the identification and repatriation of these individuals (Bartelink 2017:132–133; Gocha et al. 2018:144; Martínez et al. 2014:11; Reineke and Halstead 2017:52). However, various NGOs, including the Colibrí Center for Human Rights, have begun looking at the wider context of this humanitarian crisis (Reineke and Halstead 2017:52). The mass migration across these border states is related to several "push-pull" factors (i.e., what "pushes" a person to immigrate, and why they are specifically "pulled" to the United States), which have not necessarily been addressed or deeply investigated. While the identification of these individuals is and will continue to be important, it can be argued that the political, economic, and social issues prompting these migrations would be worthy of study (Bartelink 2017; Gocha et al. 2018; Martínez et al. 2014; Reineke and Halstead 2017). This dissertation aims at addressing these factors, not just how they came to be, but the impacts that they can have throughout an individual's life through the use of a bioarchaeological context.

The structures of violence, both direct and indirect, that lead many of these individuals on the treacherous journey to cross the border, as well as the long-term effects on their health, have not necessarily been at the forefront of forensic or bioarchaeological research. Much of the effort, justifiably so, has been in aiding recovery, identification, and repatriation efforts. Within this research we hope to take a step back from this methodology and instead try to understand why this is happening in the first place; the intricacies involved in the decision-making process to leave; the process of actually leaving; and what life is like in the United States (US) post-migration. This means that not only are we looking at skeletal data, but we are also employing an ethnographic component to this research.

The ethnographic component is meant to work in unison with skeletal data acquired from the Pima County Office of the Medical Examiner (PCOME), located in Tucson, Arizona, in the summer of 2019. This dissertation aims to give individuals agency in being able to express and describe their experiences in their own words rather than relying on skeletal data alone. The skeletal data can certainly inform us of the biological stress factors an individual may have experienced throughout their life, but in hearing from individuals who experienced similar circumstances we are able to note how these situations may have actually played out. I acknowledge that not all situations are the same, but this approach does allow for the semantics to be noted, because it is often these details, that we cannot view skeletally, which can inform us of previously unexplored factors that have led to this humanitarian crisis. The human skeleton alone cannot necessarily inform us of the political,

social, and economic intricacies involved in having to migrate, nor can it tell us why the US was chosen specifically. It is the individuals who have actually made these journeys that fill in these gaps of data.

ORGANIZATION OF THIS STUDY

This dissertation is arranged by first giving a background on the crisis surrounding the US/Mexico border and how this location and even the idea of migration in this location came to personify structural violence. The theoretical frameworks presented here serve as a basis onto which specific materials and methods were employed in order to engage with the skeletal, ethnographic, material, and geographic data encountered in this research.

Chapter 2 introduces an overview of four countries in Latin America: El Salvador, Guatemala, Honduras, and Mexico. These four countries were selected on the basis that they tend to be where a large portion of migrants crossing the US/Mexico border hail from. This chapter provides a brief history of the tumultuous political, economic, and social intricacies these countries experience, as well as how the US factored into these issues. The final emphasis in this chapter is on how a land that is supposed to provide opportunities for many of these individuals can actually become an extension of the violence (structural or physical) that they are trying to escape.

Chapter 3 outlines the theoretical perspectives and frameworks that will be used in order to examine the issues pertaining to the four previously noted countries. The theoretical perspectives discussed in this chapter include life course, embodiment, and personhood. This section provides an overview of importance, applicability, and even critiques of their use as well as how they fit within the current research parameters.

While structural violence is mentioned previous to Chapter 4, this chapter fully explores the concept and various layers associated with a structural violence framework. The origin of structural violence is noted here, and more specifically how it can be applied to bioarchaeological work as it pertains to the border crisis. An important distinction is also noted here—that of stress and violence. The differences, similarities, and how they can be and are used within this research are explored.

Chapter 5 is composed of the materials and methodology used in this research. Given that this study is comprised of skeletal and ethnographic data, it was important to note why certain methods were utilized within each area. The chapter first addresses the skeletal sample used and the methodology applied in order to later delve into questions regarding structural violence and how this might be perceived through skeletal material. This section also explains why ancestry will not be noted here as part of the methodology in skeletal analysis. The latter portion of the chapter addresses the ethnographic component of this research, including how interviews were conducted and how

ethnographic data was quantified (where possible). This chapter concludes with a brief introduction of how skeletal and ethnographic data will be synthesized and used in unison to address the larger structural violence framework.

Chapter 6 delves into the skeletal data of this work including a brief description of the population—individuals found deceased along the US/Mexico border and taken for analysis to PCOME. The results discussed here address the biological profile (i.e., age and sex), as well as indicators of stress which might be propagated by structural violence. These skeletal stress indicators include cribra orbitalia, porotic hyperostosis, linear enamel hypoplasia, carious lesions, dental modifications, and fractures.

Chapter 7 reviews the ethnographic component of this research as well as the Colibrí Center for Human Rights (Colibrí Center) anonymized data set. The chapter first engages with the ethnographic component including who was interviewed, the types of questions asked, and the various responses. These responses addressed questions regarding where they from, and why, when, and how they left. This chapter also provides firsthand accounts, in the interviewee's own words, noting the difficulties and reasoning behind the decisions that ultimately led them to cross the US/Mexico border, even when knowing the potential perils. The latter portion of the chapter discusses the Colibrí Center anonymized data, which considers information from the last 20 years, noting demographic information of individuals that went missing when attempting to cross the US/Mexico border. The data here is slightly different as it is acquired from individuals who are reporting missing loved ones, so this does not necessarily mean they are deceased, but rather that they have not been heard of since they made the decision to cross.

Chapter 8 looks at the material these individuals carried (also referred to as "things they carried") with them as they crossed, as well as the various potential locations that they used while crossing. This information was gathered using PCOME data and ethnographic data. When individuals are found deceased, PCOME also notes where they were found, what they were wearing, and what they carried with them. Ethnographically I was able to note this, through simply asking individuals where they crossed and what they carried with them. However, with the ethnographic component I was able to note more specifically why some items were or were not carried, and the decision of why certain locations were used as trekking corridors versus others.

Chapter 9 synthesizes the skeletal and ethnographic data presented in this dissertation. This chapter brings up the various issues and potential avenues to addressing this humanitarian crisis that continues at the US/Mexico border.

CHAPTER 2 IMMIGRATION BACKGROUND

INTRODUCTION

An integral part of this research is to understand the profound and problematic history surrounding some of the primary countries associated with migration along the US/Mexico border. The history of US involvement in Latin American countries is and has been problematic given the often racist and colonial implications brought by its involvement in these countries' local economies and politics. Often the US is assumed to be an ally in these situations and is brought over to help "mediate" or resolve immediate issues relating to labor, exchange of consumable goods, and international and national policies. However, this aid often comes at great cost to these countries given that the relief they receive is short-term and in the long term causes larger economic, social, and political issues. This then causes many individuals living in these countries to have to find other means of help, which often also means reaching out to the US for help. However, this help is much different than the type asked for or received by their governments. As of late the media has seemed to be hyper-focused on issues of people migrating from their home countries. However, as we will see in this chapter, this issue is certainly not new but rather entrenched in a history of social, political, and economic racism.

Of special interest here is the push-pull factors motivating individuals to travel across dangerous landscapes. It is often called into question why individuals are willing to go through such a dangerous and often deadly trek to another country. This chapter explores that question and delves into the specific push-pull factors each of these countries encounters, which motivate many individuals to leave their home country. While not exhaustive, this work highlights what many feel to be the beginning of a political climate that introduces the human rights violations of their constituents. The structures in power often are the very entities that lay down the framework for corruption, impunity, violence, and poverty, which then leads an individual or group to feeling the need to escape these issues.

Historically, many Latin American countries have been rich with various natural resources. However, once these natural resources were identified, issues related to control and accessibility began to rise. Conflict at both the local and international level did not happen overnight; it occurred through years of repression, discrimination, and violence (Alvarado and Massey 2010; Hicks et al. 2014; O'Neil 2016). Tensions over accessibility and ownership tend to escalate in such a way that they are only noted once a structure of violence has been well established (Cruz 2011; Hicks et al. 2014). This chapter discusses four Latin American countries: El Salvador, Guatemala, Honduras, and Mexico, and the resulting conflicts they have experienced at a macro and micro level (Devia Garzón et al. 2016). These four countries have rich cultural, environmental, and

social resources (Castañeda 2017; Comeforo 2007; Devia Garzón et al. 2016). However, it is these very strengths that have made them the targets of corruption, impunity, and violence (Cruz 2011; Dresser 2017; Hicks et al. 2014). The injustices occur at a local level and are exacerbated by international alliances. This chapter outlines these macro- and micro-level aggressions, which have led to human rights violations, and help understand why many individuals felt the need to flee their home countries. While it is certainly difficult to pinpoint where the issues began and who is to blame, it is still worthwhile to examine this tumultuous history in order to better contextualize the current humanitarian crisis due to mass migrations to the US.

The reasons for migrating and the health effects associated with migrations are vital to understanding the current mass migrations occurring around the world. Here I attempt to discern the policies and people in power that created the structures of violence within these countries. Issues of migration and human rights violations occur worldwide, but I focus on the geographical area where the US border meets the Mexico border, and the countries of origin for the majority of migrants in this area. These countries were selected based on information reported by PCOME (2018) as well as anonymized demographic data provided by the Colibrí Center. According to PCOME (2018), and Colibrí; El Salvador, Guatemala, Honduras, and Mexico are the countries with the highest rates of migration and fatality in attempting to cross the US/Mexico border.

The chapter will first introduce the US border as a landscape entrenched with structural violence, and what it means to be one of the many individuals who trek this dangerous territory. This is followed by a brief overview of structural violence and how it becomes embedded in the framework of many countries, making it so normalized that it becomes almost impossible to identify and combat. Following this will be a very highlighted overview of Latin America as well as the countries of El Salvador, Guatemala, Honduras, and Mexico, explaining how structural violence has shaped the countries' political, social, and economic systems. This is followed by an examination of the various international agencies complicit in the formation and continuation of structural violence. The paper ends with a thought piece, meant to really delve into the idea of why the US may seem like a better alternative than an individual's home country, but many times can be quite the opposite. In short, it explores how the American dream can become a nightmare.

THE UNITED STATES BORDER, A PLACE WHERE "NOBODIES" LIVE

At the junction of the US and Mexico borders, specifically in the states of Arizona, California, and Texas, we see the frontier that symbolizes fear and the unknown, as well as the possibility of social and economic worth. This border symbolizes opportunity for those running away from war, devastation, poverty, and hunger. Unfortunately, the US, the country where they seek this safety, has been at the forefront of the devastation brought to their home countries. More so, if a successful crossing is possible, crossing this border does

not immediately equal freedom and economic prosperity. Even within this new area they still face dangers to their persons, and what might be worse is their status as a "nobody" can shift to "nobodies," seen as outsiders and a danger to the calm, natural order of things.

The actors at play generate "nobodies," which can also be interpreted as "displaced peoples," and who these "nobodies" are varies by country (Green 2011). Of special interest here are the countries El Salvador, Guatemala, Honduras, and Mexico. Each of these countries has dealt with their fair share of displacement, specifically of their indigenous communities. Typically, governments in power with a militarized platform have been at the forefront of these displacements (Benson et al. 2008; Manz 2004a). However, these countries do not act alone; in fact, the US has been a quiet ally to all of these countries in providing financial support, weapons, and military intelligence support (Benson et al. 2008; González 2017; Malkin 2013; Manz 2004a, 2004b; Pine 2008). This support, as we have now come to find, has led to the displacement and mass migration of thousands, a majority of whom are part of various indigenous communities (Manz 2004a, 2004b; Pine 2008). In response there comes to be this category of "nobodies" (Green 2011), meaning that the individuals that become displaced in the legal, social, and economic sense seem to lose their personhood (Green 2011). They simply become a number or part of a larger group, their individuality and agency erased by this structural violence encountered in their home countries (Green 2011). This leads them to then become just a number at the US/Mexico border. The use of the word "nobodies" here refers to those that have been disenfranchised by their own countries and the US (Green 2011). These are the same individuals that we see making the decision to cross. The goal here is to get past this idea of "nobodies" and treating them like numbers and to finally allow them to voice who they are, their concerns, and their hopes.

It is these communities, already marginalized within their own countries, that continue across borders, and continue to become international "nobodies." Thus, these marginalized groups and individuals become invisible, an afterthought of their own governments. These "nobodies'' go into a state of limbo where no one can offer them safety, or access to healthcare or housing (Green 2011). These basic human rights are often denied to them by the very governments who should in theory be providing these services (Devia Garzón et al. 2016). Perhaps even more troubling is that their governments aid in perpetuating the inaccessibility of these basic resources. This is done by having healthcare services hard to access financially and even physically, meaning that often times healthcare services are hours away. Another way this might be done is by lack of employment opportunities; even if employment is available, they are grossly underpaid (Green 2011). Even after coming to the US, many of these individuals will continue to be invisible, ignored, and victims of structural violence (Green 2011). The thought is that once they immigrate things will get better, things will change; however, this is not always the case (Green 2011).

An individual's social and economic status has been suggested to be based on a plethora of factors that include geographical location, familial social status, culture, gender, and sex (Green 2011). Adding to this complex web of status is the fact that a person's social and economic position is never truly static (Joyce 2005; Mayer 2009). An individual's worth may be highly valued at a certain point in their lives, but then diminished at other points (Mayer 2009). With individuals deciding to migrate from their home countries, one can surmise that their "worth" has diminished significantly (Green 2011). However, it is important to note that this social worth or status is also influenced by external, or rather international factors such as global economics (i.e., North American Free Trade Agreement [NAFTA], Central America Free Trade Agreement [CAFTA]), as will be discussed below (Farmer 2003; Green 2011). For example, an individual can be fully capable to work but given international trade agreements the compensation that they would typically get paid gets diminished significantly. Meaning they are no longer able to afford necessities, making it necessary to get additional employment or to find alternative means of living and getting healthcare given their diminished financial capacities. This has led to the overarching idea that individuals experiencing lower social and economic statuses have the need to migrate elsewhere in hopes of improving their social and economic positions. That being said, it should be noted that economics is only one part of the puzzle that leads individuals to migrate from their homes; several other factors such as racism and sexism also can come to play here (Farmer 2003).

In this web of internal and external influences, an individual can be left with little to no chances to thrive economically, leading them to pursue alternatives, which in this case would be migration (Green 2011). These individuals have historically tended to be economically, politically, and socially exploited individuals (Green 2011). In the countries of El Salvador, Guatemala, and Mexico, these individuals tend to be the indigenous populations who have suffered a long history of exploitation, violence and discrimination (Green 2011). With this in mind, it is social worth and who is or is not considered a person of "worth." Those that are not deemed "worthy" tend to become invisible in a sense that they are "nobodies," making them prime targets for marginalization.

STRUCTURAL VIOLENCE FRAMEWORK

In understanding the ever-changing nature of structural violence, it is important to comprehend the "power and connections" of how it began and how it continues to change (Farmer 2003:11). Violence, like power, is never static, and can constantly evolve, making it difficult to decipher (Devia Garzón et al. 2016). However, looking at the web of global interconnectedness that influences violence allows for a deeper understanding of the continued structural violence in certain geographical areas at certain points in time (Farmer 2003:11). The power and connections affecting Latin American countries, where we see mass migration, seem to have an overbearing similarity.

These similarities include NAFTA, signed in January 1994, as well as CAFTA, and the use of "*mano dura*" as a strategy of obedience, militarization, impunity of corrupt government officials, and ethnic discrimination as well as the massacres of Maya people (Camacho 2008; Devia Garzón et al. 2016; Kasun 2017; Lopes et al. 2017; Preti 2002; Walsh and Menjívar 2016). In short, "*mano dura*" means a zero-tolerance policy on behalf of governments, meaning if any type of disobedience occurs, there will be no governmental leniency, as a means to show the government's ultimate authority. It is this aggregation of political ailments that turns into the breeding ground for structural violence to occur. While each country experiences structural violence in its own way, the results tend to be the same: the need to leave and escape or face a life of suppression, violence, and possible death. The culmination of necessity to escape this structured and physical violence can be noted at the US/Mexico border. The US/Mexico border is not necessarily a place where one escapes structural violence; in fact, it is a place where it is very much alive and disguised as hope and freedom.

The US/Mexico border has served as a hotspot of sorts to expose the many human rights violations propagated by an agglomeration of powerful entities in various countries (Doering-White 2018; Manz 1988, 2004a, 2004b). Countries such as El Salvador, Guatemala, and Mexico have been players in this intricate web of structural violence. Structural violence is structured in such a way that it is often difficult to pinpoint a specific propagator (Menjívar and Walsh 2017). This of course is the crux of structural violence and makes it hard to determine where it started, who spread it, and how to stop it. Complicating the issue is the normalization of structural violence, which leads to impunity, and given that the perpetrators know they will not face retribution they will continue this behavior (Menjívar and Walsh 2017). This has unfortunately been a trend in Central America as well as the US/Mexico border—a trend that has led to the structured and institutionalized violence in these countries leading to mass migrations (Martínez et al. 2014).

This brings into discussion the topic of peace, and how it can serve to detangle the intricate web of structural violence. In fact, many would argue that the need to migrate can diminish if peace accords are in place; however, historically, we have seen that a country declaring "peace" does not necessarily equate to peace (Cruz 2011). In fact, a declaration of peace does not erase years of violence, murder, discrimination, poverty, and impunity. The transition to peace is one that is very slow and difficult to adapt to, regardless of the role one played in producing or being victimized by structural violence (Cruz 2011). To further extrapolate, this idea of simply having "peace" is actually quite difficult, because we run into issues of what peace actually means and how it is ultimately achieved. In addition, saying we are going to have peace doesn't mean that social, emotional, economic, and political wounds will be healed. Memory is a very real and important thing to factor in when speaking of resolutions to issues brought on by structural violence. One of the powers that structural violence holds is its longevity, making shifts to "peace" rather difficult.

What follows is a brief history of El Salvador, Guatemala, Honduras, and Mexico. This history explains the trajectory of structural violence in each country as well as the attempts for "peace," which many times was short-lived. While it would be naïve to state that these countries now live in "peace," it is interesting to note the trajectory of structural violence. This brief history also exemplifies the commonalities experienced by these countries and how structural and physical violence have shaped these countries through time. Policies, impunity, the economy, and corruption have all played an imperative role in creating states of terror which are often overlooked by international countries and organizations. This makes accountability and rectification of the situation incredibly difficult for these countries. However, many human rights organizations and institutions have begun realizing this humanitarian crisis and are beginning to speak up and publicly highlight the many issues occurring in these countries. By highlighting and understanding the long history of structural violence within these countries, perhaps accountability can begin to occur.

POLITICAL HISTORY OF LATIN AMERICA

In recent years the US has become the home to more than 40 million people who have immigrated from foreign countries (Lopez and Bialik 2017). The countries of El Salvador, Guatemala, Honduras, and Mexico are used here as case examples, given that they have historically been the countries with the highest rates of individuals migrating across the US/Mexico border (PCOME 2018). This information was acquired from PCOME, where a majority of the individuals who die crossing the US/Mexico border in the state of Arizona are taken for post-mortem examination (PCOME 2018). While individuals have attempted to cross in the states of California and Texas, the focus here will be on the crossings occurring at the Arizona border. In general, migration patterns tend to be similar in all three states, but given that Arizona, and more specifically Pima County have a structure in place to account for these crossings and deaths, it will remain the focus here.

According to PCOME records, between the years 2001 through 2006, a majority of the individuals deceased in the attempt to cross the US/Mexico border consists of groups originating from El Salvador, Guatemala, Honduras, and Mexico (Anderson 2008). As of 2018, these trends continue to be seen at PCOME, so these four countries serve as reliable case examples. While there are certainly other countries at play here in terms of migration due to structural violence in their home countries, due to the consistency and high numbers of the previously mentioned four countries, these will remain the focus (Martínez et al. 2014). What follows will be a brief overview of how the history of structural violence in these countries propagated the mass migration we are currently witnessing along the US/Mexico border.

El Salvador

From approximately 1980 to 1992, El Salvador experienced its own civil war (DeLugan 2012). During this civil war approximately 75,000 individuals, including indigenous peoples, were lost, tortured, or disappeared (DeLugan 2012). This war was primarily between the government of El Salvador and the insurgent Farabundo Mart. National Liberations Front (FMLN; Chávez 2017). This war was complex, lasting 12 years and involving various actors. Given time constraints, this brief overview emphasizes the basis for the conflict as well as those who supported the military dictatorship, as well as the long-term consequences post-war.

The government of El Salvador promoted the repression against various groups who questioned the order, value, and legitimacy of their government (Chávez 2017). However, a strong insurgency movement was beginning to build, which was composed of priests, students, teachers, and peasants who wished to speak against their government's constant repression and violence (Chávez 2017). Various factors at play produced this civil war in El Salvador, including state-sponsored terror, cold war terror, electoral fraud, militarism and systematic human rights violations (Chávez 2017). Clearly the political, social, and economic situation in El Salvador was shaky to begin with, but US-sponsored military support only exacerbated the divide within the county (Chávez 2017). As with any civil war, sides were taken and those who opposed the government began organizing amongst themselves, forming guerillas, and hence beginning the country's civil war (Chávez 2017). The 12 years in which the civil war occurred in El Salvador saw gross human rights violations against individuals hoping to gain a voice in their county, all of which were supported by the then-US Presidents Carter and Regan (Chávez 2017).

In 1992, the United Nations stepped in and aided in the negotiations between the El Salvador government with President Alfredo Cristiani and the FMLN (Chávez 2017; Dykmann 2009). However, just because negotiations are conducted does not mean that a country can go to their pre-war form. Not to mention the fact the United Nations had their own vested interests for intervening in this civil war. This post-civil war period continued to be grounded in fear and retaliation for those that had opposed the original military dictatorship (Green 2011; Gutierrez 2017; Vogt 2013). The aftermath was full of suspicion, poverty, and continued disappearances and executions, all of which organizations such as the United Nations seemed to overlook at their convenience (Chávez 2017).

While post-civil war El Salvador has attempted to regain economic, political, and social harmony it has had both successes and failures (DeLugan 2012). Ending a war, especially a civil war, is not something that happens overnight. In fact, El Salvador as well as various other countries can attest to the fact that it is rather a slow and painful process (Green 2011). Just because "peace" is declared, doesn't mean that this is what actually happens (Cruz 2011). While El Salvador has attempted to install several programs such as the Culture of Peace Program, and the Cultural Identify Program, to

promote national values and peace, these have not had the desired results (DeLugan 2012). There continues to be mistrust, impunity, corruption, and violence (Preti 2002). The previously mentioned issues seem to be at the forefront in El Salvador, causing thousands of individuals to flee their country, even post-civil war.

Guatemala

The country of Guatemala has a very long and complex history of state sponsored violence, racism, militarization, and corruption (Cruz 2011; Manz 1988). Guatemala experienced civil war from 1969 to 1996 as a response to corruption in the military (Lopes et al. 2017). Prior to this however, Guatemala still experienced economic domination as well as social and racial discrimination, especially towards the local native groups in the region, a majority of which were Maya (Manz 1988). Tension continued to escalate as General Efraín Ríos Montt took power in March 1982 (Manz 2013). Given the upheaval of the nation in regard to this strict and violence militarization, the US with the backing of President Ronald Regan, aided in the training of Guatemalan armed forces headed by Ríos Montt (Manz 2004a; NAS 2003). Of special interest to the Guatemalan armed forces were the indigenous Maya living on the countryside (Manz 2004a, 2004b). These armed forces would often patrol countryside villages and set members of these indigenous communities against each other (Manz 2004a). Once pre-established relationships were shattered, massacres, rapes, and destroying of livelihoods would ensue (Manz 2004b).

Given the thousands of Maya people murdered, tortured, and disappeared at this time, it has been recalled as a genocide as well as an ethnic cleansing beyond the scope of what the world has seen (Manz 2004a). Estimates of the atrocities committed include 10,000 dead, approximately 1.5 million displaced from the countryside, and an estimated totally of 200,000 "disappeared" and killed throughout the three decades of conflict (Manz 2004a). In general, anyone who spoke out against the government, at any given time, or was even suspected of speaking against the government could become a target (Manz 2004b).

Given the structural violence in place that then translated into physical violence, many had no choice but to flee their war-torn country (Manz 2004a, 2004b). Some would return post-war after the signing of the peace accord in 1996 bringing a formal end to the civil war (Manz 2004a). Throughout the war and after, various groups would attempt to escape by going to Mexico or using Mexico as a point of transition on their journey farther north (Manz 1988). Years after the bloody war has ended there seems to be no peace in site for the thousands of displaced indigenous groups in the country (Malkin 2013). The repercussions of the war continue to be felt and the racialized and militarized sentiments continue to be present among those of power. The core structure of trust was destroyed during this violent war, causing present-day individuals, who may not have even seen the war, to still feel its repercussions of the violent structure in place.

Honduras

Honduras has experienced its own set of atrocities at the hands of a militarized government (Frank 2018). Like El Salvador and Guatemala, and Mexico, the Honduras military also received training and funds from the US Government (Green 2011). A mixture of militarization, as well as international funding (primarily from the US) and accolades from international organizations have led to gross human rights violations in the country of Honduras (O'Neil 2016). Many have pinpointed the beginning of the downfall as beginning on June 28, 2009, with a militarized coup taking over and forcefully removing elected president Manuel Zelaya and placing Roberto Michelletti as the new president of Honduras (Menjívar and Walsh 2017; Ronderos 2011). In a "free" election process on January 27, 2010, Porfirio Lobo was named president of Honduras, a decision which the US viewed as unifying the country of Honduras (Frank 2018). However, it should be noted that prior to this Honduras still experienced violence, poverty, impunity, and discrimination, albeit at a lesser level (Menjívar and Walsh 2017; Portillo Villeda 2016). As with other Latin American countries, here the elite rule meanwhile the campesinos or farmers, as well as the indigenous population suffered from poverty, violence, and malnutrition (Frank 2018).

Fueling these issues were international companies such as the United Fruit Company and the Standard Fruit Company (Frank 2018). These corporations would take local lands and have lower class Honduran individuals work long hours in unsafe conditions (Frank 2018). This great upheaval helped create workers unions in Honduras (Frank 2018). While this is only a small example of the issues occurring in Honduras prior to the coup of 2009, it serves to emphasize the ongoing discrimination and injustices occurring prior (Frank 2018). Likewise, it also serves to demonstrate that the Honduran people did at least have some voice in determining their futures, something they would not have after the coup. While the military coup of 2009 removed President José Manuel Zelaya Rosales from office, several things of note occurred (Frank 2018). First, the US government, specifically the Obama administration that was well aware of the situation and did nothing. The US would actually express its support to Honduras, with the claim that Honduras was moving forward as a country (Frank 2018).

Many have speculated that the US' unyielding support was largely due to the existing partnership of the Soto Cano Air Force Base, which is a joint US and Honduran base (Frank 2018). It would be faulty to say that this was the sole reason for the US being accomplices to the Honduran coup, but it certainly played a role. During this coup an array of atrocities ranging from rape, mutilation, intimidation, kidnapping, and murder occurred to citizens of these countries, but partially to indigenous groups (Frank 2018; Portillo Villeda 2016). Whereas prior to the coup Honduran people made themselves heard when they were unhappy, now immediate physical, economic, and psychological retribution would occur with the backing of a relentless military and police force (Frank

2018). This however did not stop hundreds of Hondurans from marching the streets fighting for their basic rights that dissipated once the coup took charge (Villeda 2010). While the country of Honduras attempts to rebuild today, they are still dealing with the consequences of violent and prolonged military dictatorship.

Mexico

The history between Mexico and the US has been tumultuous for some time. However, Mexico of its own accord has had a series of internal struggles, leading many of its constituents to migrate north. While many have blamed the establishment of NAFTA in 1994 as the primary motivator behind the poverty, crime, and mass migration in Mexico, these and various other issues had been previously present in the country of Mexico. Within the country of Mexico there are legacies of wars, violence, economic instability, poverty, and impunity (Vogt 2013). While NAFTA is not the sole entity to blame for the various issues in Mexico, it certainly is a factor. The country of Mexico has been exploited since its discovery by the Spanish and has continued to be a ground for exploitation and corruption given its rich natural resources (Alvarado and Massey 2010; Marak and Tuennerman 2013).

Mexico has had its own set of internal conflicts, much like the previously mentioned countries. These conflicts have been presented through the inability to provide a stable economy, a safe environment, or impunity for corrupt officials (Castañeda 2017). The structure in place has made accountability nearly impossible, adding to these issues rather than helping eradicate them (Vogt 2013). Targets of violence have become individuals who encourage change such as students, teachers, human rights workers, and even politicians (Dresser 2017; Vogt 2013). It has been difficult to pinpoint who exactly is behind this structured violence, however, this inability to pinpoint who is at fault has aided in the continued violence and inability to put an end to it. In Mexico today, students go missing, presidents are called out for their corruption and cartels continue to run the larger Mexican economy (Alvarado and Massey 2010; Vogt 2013). These past and present issues have encouraged mass migration of Mexican people in hopes of safety and financial security (Alvarado and Massey 2010; Vogt 2013). This encouragement has been propagated in the past by several programs aimed to "help" these individuals acquire safe and legal means of employment (Vogt 2013). However, as we know this only lasts so much as it is needed by the government in question.

One of the many entangled structural webs that aided in encouraging migration was the Bracero Program, officially known as the 'Mexican-United States Program of the Loan of Laborers', establishing in August 4, 1942 (Camacho 2008). At this point in time Mexican migrants were a much-needed commodity for their physical labor, and once they were no longer needed were disposed of (Martínez et al. 2014; Vogt 2013). This form of structural violence enacted a sense of disposability of Mexican migrants, not only that

but it continued to displace them so that they never truly had their own space even when they returned home (Camacho 2008; Vogt 2013). The need for migrant labor, and the acceptance of these individuals to migrate was not only the doing of the US. Mexico played a big role in this, given the lack of safe and stable economic opportunities available, which is arguably an issue exemplified in all the previously mentioned countries (Devia Garzón et al. 2016).

Mexico continues to have political, economic, and social instability (Dresser 2017). The country's government has only exacerbated the dire situation of the country (Dresser 2017). This has led to the continued mass migration at the US/Mexico border. In addition, many individuals from El Salvador, Guatemala, and Honduras go through Mexico in order to reach the US border, causing a "double migration" of sorts in the country (Doering-White 2018). While Mexico has been dealing with issues of their own constituents crossing the US border, they have had to also deal with their own mass migration issues. Ironically, Mexico has quite the negative history with managing immigrants in their own country, which can be highlighted by the treatment of Chinese immigrants in the early 1900s that came with the promise of economic opportunity, as well as that of central American migrants in the past and in the present day (Doering-White 2018; González 2017).

INTERNATIONAL LAW AND ITS ROLE IN STRUCTURAL VIOLENCE

While many international governments and agencies have attempted to bring peace to the previously mentioned countries, it should be noted that many of these governments and agencies, were the very entities responsible for the disruption of peace in the first place. These governments played a role in the establishment and development of structural violence (Malkin 2013). for the success of structural violence in the first place (Malkin 2013). What follows is a list of key international players who facilitated the structural violence in these countries under the guise of humanitarian aid or economic interest of the host county (Malkin 2013). The tendency here is to place fault of a country's structural demise on a single entity or agency, however, as we will note it takes various interconnected powers to form the tight webs of the structural violence we see in El Salvador, Guatemala, Honduras, and Mexico. These webs often become so conflated that it is difficult to pinpoint exactly where things may have "gone wrong." However, it can be argued that this is precisely the point, to obscure culpability as much as possible to find clear and accessible targets to blame, which tend to be people of lower socio-economic status as well as those of native heritage.

NAFTA and CAFTA-DR

NAFTA went into effect on January 1, 1994 (Camacho 2008; Shaiken 2016). There has been and continues to be controversy regarding this agreement and how it has contributed to the rising poverty levels of the countries involved in including Mexico, the

US, and Canada (Shaiken 2016). Historically, NAFTA has been noted as the sole factor in the poverty, discrimination, and migration of individuals specifically from Mexico (Shaiken 2016). While NAFTA does not help the situation, it is far from the sole cause of the larger migration issue (Shaiken 2016).

CAFTA began in 2002 with the support of the US President George W. Bush (Hicks et al. 2014). By 2004, the Dominican Republic also joined, changing the name to CAFTA-DR (Hicks et al. 2014). The US is well known for pushing forth their trade and development policies, meaning they put forth policies that benefit THEM directly, not the countries in which they make the deals with (Comeforo 2007). However, this raises the question of whose interest is made a priority. CAFTA, much like NAFTA tends to prioritize larger corporations, leaving the family-owned enterprises to fail (Alvarado and Massey 2010).

While trade agreements like NAFTA and CAFTA-DR reduce many tariffs to zero between member countries and loosens regulations addressing ownership, sanitation, and intellectual property, they tend to benefit larger corporations (Comeforo 2007). Those who own smaller businesses do not benefit by this agreement and tend to lose their businesses and livelihoods. This is why once again, historically both NAFTA and CAFTA-DR have been seen in a negative light as only helping those corporations or individuals that are already wealthy. So, in reality the trade barriers in place mainly help those already in power or those with an already established monopoly of goods (Martínez et al. 2014).

Once people lose their livelihoods and are unable to acquire safe and economically fair employment, they are forced to leave their hometowns and even countries in hope of acquiring a sustainable and safe livelihood elsewhere (Martínez et al. 2014; Meyer 2017). However, it would be erroneous and false to blame NAFTA and CAFTA-DR alone for the structural violence caused migration we are now seeing (Meyer 2017). It is just one factor in the many political agreements pushing people out of their countries. NAFTA and CAFTA-DR were produced through structural violence and continue to be sustained by it, which is why it is important to view these two agreements within the larger economic, social, and political context of these countries and the US.

United Nations

The United Nations was officially formed on October 24, 1945, with the primary objective of world peace and guaranteeing human rights (Dykmann 2009). Soon after World War II, several countries came together in hopes of avoiding another war (Dykmann 2009). While certainly formed in noble hopes, the United Nations has certainly been guilty of its own array of violations not only as an entity, but also by its member states (Dykmann 2009). Its "power" is based on an agreement among several member states (Dykmann 2009). These member states have agencies and individuals that participate within the United Nations' various organizations, which include but are not limited to the World Health Organization, the World Bank, the United Nations High Commissioner for

Refugee, the International Organization for Migration, and the World Trade Organization (United Nations 2020a, 2020b). Many of these organizations aim at the protections of "human rights," commencing with the Universal Declaration of Human Rights in 1984 (Nygren-Krug 2002; United Nations 2020a, 2020b). While the United Nations certainly has had success, its inability to legally mandate member states to follow specific guidelines or policies hinders its success and overall message of peace.

Within the context of El Salvador, Guatemala, Honduras, and Mexico, the United Nations has been at the forefront in investigating the array of human rights violations that have occurred. As previously noted, these four countries have experienced mass atrocities due to civil and international conflicts. The United Nations has provided financial aid for these countries in hopes of calming the financial and human rights violations (World Bank and United Nations 2018). However, the issue here is that the entities receiving the money, usually local or national governments, are the very ones responsible for the violation of human rights as well as the financial demise of the country (World Bank and United Nations 2018). Additionally, it has seemed that the United Nations has erroneously praised and given a platform to individuals and governments who hide under the guise of saviors of their country (Frank 2018). A great example of this is presented by Frank (2018) when she speaks of President Porfirio Lobo from Honduras speaking at the United Nations about truth, peace, and reconciliation, when he in fact one of the primary individuals responsible for the violations of these subjects (Frank 2018).

While the United Nations has certainly at times enabler of human rights violations, its core values do attempt at terminating these abuses. Like many other entities the United Nations is also subject to corruption, given that it is privileged individuals who hold power here (Dykmann). However, the United Nations has exemplified the possible utopia that might be able to exist around the world. This is done through various studies, publications, outreach, special programs, and funding (United Nations 2020a, 2020b; United Nations Human Rights Committee 1966). In addition, it is important to note that the United Nations has also been able to produce empirical research about the issues propagating these countries as well as viable solutions (Chávez 2017; Cruz 2011). While the relationship with the United Nations is certainly a complex one, it has certainly been an international actor that has affected many of the outcomes seen in these various countries.

THE LAND OF OPPORTUNITY, WHERE STRUCTURAL VIOLENCE HIDES

While the US may hold the ideal of financial and social upward mobility, this is often the exception rather than the rule. Historically the US has had the need for immigrant labor in the US (Martínez et al. 2013). When this occurs, the idea of immigrating to the US comes with the possibility of upward mobility. However, once this need for labor dissipates, the need for foreign labor goes along with any hopes for upward mobility. As a business practice this may seem sufficient, bring labor in when it is needed, reject it when

it is no longer needed. However, when dealing with human beings, this transition in process is not as smooth. In fact, the need for cheap labor in the US is just one of the several reasons why individuals, particularly from the previously discussed countries, decide that the US is a preferable destination from their home country. This is not to say that the US is seen as a savior, in fact, not everyone views the US as a land of opportunity.

IMMIGRATION TODAY

As of 2023, politics (both national and international) have been heightened with the discussion of immigration specifically regarding citizenship, detention centers, family detention centers, asylum, private prisons, and sanctuary cities. This conversation was heightened by the Trump presidential era filled with hate speech that impacted people's ethnicities, heritage, economy, employment, and overall self-identification. The number of migrants has certainly not dwindled and there are several factors at play besides those previously mentioned in this chapter. This highlights the need for this conversation to be continuous. While the reasons as to why individuals may choose to immigrate were just discussed, this does not mean that these catalysts are in the past. In fact, the COVID-19 pandemic seems to have exacerbated the immigration crisis, both in regard to individuals wanting to migrate, and in the US, continually criminalizing and violating many of these individuals' basic human rights (Gramlich 2023). The pandemic and media attention has made this issue more visible to the public, however it is not a new situation. American citizens continue to be divided on the best approach at dealing with this mass migration as well as in understanding why it is occurring in the first place (Budiman 2020). As of November 2023, there have been a reported 206,239 attempting to cross the US/Mexico border (US Customs 2023).

Immigration in its most obtuse form does not only impact those individuals in El Salvador, Guatemala, Honduras, and Mexico. In fact, it impacts many other countries as well including India, China, and the Philippines to name a few (Budiman 2020). This issue is not only at a specific border but can happen in the array of US entry points. While those other countries and entry points are not the focus here, it would be remiss to ignore these entirely. They exist in their own right with various separate issues and problematic histories that are addressed in length by fellow researchers. Bringing them into conversation here provides a framework in understanding the much bigger issue at hand and the various languages, social, and political arenas that structural violence can play a role.

CHAPTER 3 THEORETICAL PERSPECTIVES

INTRODUCTION

Life course, embodiment, and personhood are theoretical perspectives that illustrate and contextualize this larger issue of structural violence and how it plays into the mass migration crisis in the US/Mexico border. A theoretical perspective is used in order to make sense of the skeletal, material, and ethnographic data. Bioarchaeologists are tasked with understanding the "body" as a place where interpretations occur as well as where there is evidence of the lives lived (Harris and Robb 2012). It is the hope that in understanding the theoretical backgrounds presented here, we can place the individuals in this study within a framework and context that addresses and incorporates the world around them. This world includes various aspects including culture, economy, environment, and politics which will ultimately impact an individual and who they become (Agarwal and Glencross 2011; Dornan-Fish 2012; Leatherman and Goodman 2019; Martin and Harrod 2016).

It should also be noted that life course, embodiment, and personhood are not always necessarily viewed as theories by everyone, they are more so seen as perspectives or lenses (Bynner 2016). In addition, these theoretical perspectives have not gone on without their critics. It has been argued that these perspectives may be biased, short sighted, one-sided, or based on euro-centric ideologies (Niwenshut 2016; Vilaça 2009). The history of these perspectives is certainly informed by various fields including medicine, sociology, psychology, and anthropology (Low 2003). Having this plethora of input from various fields of study can have both positive and negative insights into these areas. I would argue here that the positive insights far outweigh the issues that can be seen within these theoretical perspectives. What's more, is that there is a conscious and concerted effort to actively work and change these ideologies as we learn and move forward in our studies. While one can acknowledge these critiques it does not take merit from their place in anthropological studies, nor does it take from the true insights that they offer.

It is key to understand how we are looking at the human body and society as instruments of a lived experience (Joyce 2005). Bioarchaeologists for example look at a person's lived experience through human skeletal remains (Agarwal 2016; Joyce 2005). However, this is not as simple as saying, "This person has a fracture, therefore they experienced a violent life." The reality is that what we are seeing in the body needs to be noted and interpreted not only using multiple lines of skeletal evidence, but also at a population level that is not just skeletal but social as well (Low 2003). The field of bioarchaeology is certainly beginning to understand how society as well as external and internal stimuli can impact the habitual patterns we are so often trained to see and interpret in the human skeleton (Agarwal and Glencross 2011). More so, we are beginning to understand that while we are looking at skeletal material, these "bodies" are not just

static representations of those that once lived. Rather they represent a history, a story of a life lived that was in constant motion and ever changing rather than just static (Joyce 2005).

This chapter first addresses life course theory and how looking at an individual throughout their entire life, not just a specific point in time, can aid us in unraveling the information we see in the human skeleton and how it can translate to understand the social, ecological, political, and economic stressors an individual may have experienced throughout time (Harris and Robb 2012). Next, we will explore the concept of personhood, in other words, delving into the concept of "nobodies" and how individuals can regain their agency not only in life but also in death (Green 2011; Tilley 2015).) Lastly, we will explore the theoretical perspective of embodiment. This perspective is similar to that of life course theory, but here we instead focus on the surface and interior as well (Knudson and Stojanowski 2008).

The commonality with all three theoretical frameworks is identity: who we are, how we come to be, how we express ourselves, and the external stimuli that impacts these views. While this can be an entire discussion on its own, here it is applied to the specific questions in mind: Why are people crossing the border knowing the risks? How is structural violence playing into this decision-making process? Through investigating and understanding these theoretical perspectives together there can be a better framework to begin discussing structural violence, and then understanding how it is that it impacts an individuals or a group's decision to migrate. I would encourage that these three perspectives; life course, personhood, and embodiment be viewed and understood in unison as they work in a way that allows for a better understanding into the lives of those individuals studied in this research. These three perspectives often overlap and are intertwined. Here they will also be used in unison rather than separately since they work synergistically.

LIFE COURSE

Life course theory looks at studying an individual's life through a longitudinal perspective rather than specific points in time (Bynner 2016; Elder and George 2016). Life course theory was developed in social and behavioral research, but has since expanded into other arenas as well, such as epidemiology, anthropology and bioarchaeology (Agarwal 2016; Bynner 2016; Elder and George 2016; Gilchrist 2000, 2008; Mayer 2009). In using this longitudinal approach, we can look at the different life stages of both individuals and groups and how and why these stages change throughout time (Harris and Robb 2012). Instead of focusing on specific points in time of a person's life, for example childhood or adolescence, it looks at the overall life trajectory (Gilchrist 2000). It can also aid in understanding the life course of different groups, individuals, and generations (Gilchrist 2000; Mayer 2009).

One of the main goals originally brought in by life course theory was in its ability to deconstruct western notions of what a person's "life-course" should be (Gilchrist 2008).

For example, in western societies we tend to see 'childhood' as a time where children of a certain age learn how to play, talk, read and so forth (Boutin 2016). However, this portion of time known as childhood does not necessarily exist in other cultures, this is purely a western notion placed on our study samples (Elder and George 2016; Gilchrist 2000). Life-course theory allows us to question these aspects of time, age, gender, sex, and social status (Braveman and Barclay 2009; Mayer 2009). It is within this larger framework that bioarchaeologists began to frame their theoretical life-course perspective in the methods and interpretations used in their research. While researcher bias is almost impossible to completely exclude, life course theory allows us to understand these biases and not apply them as a life cycle, but rather to take the time to understand a life cycle within a specific culture's context.

In order to implement a life-course framework it is important to have in place several principles. The first emphasizes the individual as an active agent that is impacted by social context and structures, but likewise contributes to these (Gecas 2003; Glencross 2011). The second principal addresses the fact that lives are interdependent and both individuals and populations can influence a life-course (Glencross 2011). Through these viewpoints, and with life-course theory as a whole, change in skeletal structure can be attributed to broader factors rather than just environmental changes alone (Glencross 2011). For example, when we are born we are not just given a single identity throughout life, as we age, we go through different stages leading us to have not only changing physical characteristics but changes in social characteristics as well (Agarwal and Beauchesne 2011). In short, throughout your life you are exposed to and expected to behave, act, and interact differently leading to different interactions in your life course that if prolonged can have an impact on your skeleton as well as social status. In addition, this allows us to see the life course as fluid and not simply a snapshot of a deceased individual, this theoretical perspective gives life once again to the individuals being studied (Glencross 2011; Knudson and Stojanowski 2008).

A snapshot of only a portion of an individual's life cannot truly reveal the varying stages they went through, nor can it highlight the complexity and various factors playing into their lives (Agarwal 2016; Braveman and Barclay 2009; Gowland 2015). The body is adaptive, never static (Agarwal and Beauchesne 2011; Glencross 2011; Joyce 2005). Through a life course perspective, bioarchaeologists are able to understand how biology, behavior, environment, social status, politics, growth, bone maintenance, and genetics all contribute to an individual's life and ability to handle certain stressors such as structural violence (Agarwal 2016; Martin and Harrod 2016). However, it should be noted that in bioarchaeology life course theory is used slightly differently than it would be used in the other social sciences. For example, in many studies in the social sciences that use life course theory they apply these perspectives by studying individuals from the beginning stages of their life as it culminates to their death (Bynner 2016). In these studies, the longitudinal

aspect is quite literal, and they view individuals in real time, throughout their entire lives. However, this is clearly not possible in bioarchaeology, but nevertheless it is possible, in our own methodologies, to look at an individual's life longitudinally as well. This is done through the use of skeletal growth indicators and being able to pinpoint stressors, or lack thereof by looking at predictable growth rate patterns.

Life course theory aids bioarchaeologists in bringing together other fields such as economics, sociology, psychology, demography, epidemiology, and anthropology (Ben-Shlomo and Kuh 2002; Glencross 2011; Mayer 2009; Sofaer 2011). This is particularly important when looking at migration since we want to understand where these individuals are from, why they migrated, how and where they migrated. The intersectionality of these fields allows for a study across life domains within an individual and populations life course (Mayer 2009). Life course theory allows for this interpretive lens to occur by noting the trajectory of structural violence at a macro and micro level (Glencross 2011). As noted by Glencross (2011) life course theory emphasizes the connections between people's lives and the ever changing social and historical context in which they occur across time (Gilchrist 2000; Glencross 2011:391). Within this lens bioarchaeologists can use the previously mentioned skeletal indicators and link them to different time frames an individual may have experienced structural violence. However, as was previously mentioned, skeletal indicators alone are not necessarily indicative of structural violence, in fact many of these indicators have also been associated with metabolic and other biological stressors. Life course theory aids in facilitating an integrative approach that looks across an individual's life span in order to observe patterns or lack thereof. This perspective also makes use of historical texts, ethnographies, and medical records in order to cooperate with the existence of structural violence and more so how structural violence can be seen as the main facilitator of these skeletal lesions (Glencross 2011).

Within this present research life course theory emphasizes the "connections between events throughout the lifetime of an individual and situates these events within larger historical contexts." (Prowse 2011:410). Looking at migration and how life course theory can aid in its understanding is certainly not a new concept (Jasso 2003). Longitudinal studies in the field of sociology have actually looked at four central questions in this regard (Jasso 2003). They look at migrants at entry, progress of migrants, migrants' children, and the impacts of migration (Jasso 2003). As bioarchaeologists we cannot look at all of these questions, but what we can look at are the factors that take place BEFORE these central questions should even be asked. In looking at the social and political context going on in an individual's life we can begin to make the connections between their lived experiences and what we see in the human skeleton (Ben-Shlomo and Kuh 2002; Braveman and Barclay 2009). However, it can be quite difficult to do given that we are looking at individuals from different countries, genders, ages, abilities, ethnic backgrounds, and socio-economic statuses (Braveman and Barclay 2009; Joyce 2001). This widens the scope of what a life

course can look like for a certain group, not to mention an individual. Adding to these nuances is also the matter of how an individual self identifies or is identified by the larger group can and will change throughout time (i.e., the life course; Agarwal and Beauchesne 2011; Harris and Robb 2012; Prowse 2011). While this may seem like an issue within the research, life course theory actually allows us to view this issue and question our methods and interpretations in those groups we research. This allows us a better understanding not only of our own biases, but also in identifying the varying factors that can impact someone throughout their life (Joyce 2005). In doing so we can better understand how this can impact someone socially and ultimately lead to markers in their skeletal remains that can be interpreted, taking into account this social aspect.

For those that have crossed the border without proper documentation, the violence and discrimination they encountered in the US/Mexico border is not the only form of violence that they have faced. In fact, we will see that this structural violence is something that has occurred and changed throughout their lifetime (Soler and Beatrice 2018; Soler et al. 2022). At any given point in their lives, their heritage, where they from/located, age, sex, and religious beliefs have changed and so too has the exposure to structural violence (Mayer 2009). In seeing their experiences through a life course theory, it becomes possible to account for these factors not just in the skeletal remains of those who died at the border, but those who also survived and showed resilience in the face of mass adversity.

PERSONHOOD

The field of anthropology and archaeology have been well vested in ideas and concepts of personhood; however, it would be remiss to ignore the fundamental work done by the larger field of the social sciences, which framed that groundwork for research in this area. Douglas and Ney (1998) have reviewed this extensive history. A history that is embedded with western assumptions of what it is to be an actual person and what makes up a person. The reality is a "person" or the idea of "personhood" changes throughout time and cultures. Douglas and Ney suggest looking at personhood as an onion (1998). A person, like an onion, has many layers, and at the core of this onion is the true essence of the person (Douglas and Ney 1998). If we take on this symbolism it becomes clear where a plethora of confusion can begin to arise when deciphering what person or personhood means. Here I would agree with Fowler in that our own understanding of personhood is limited to our own perceptions of it (2004). Does this mean we should abandon the idea of understanding what it means to be a person, how someone becomes a person, and is impacted and impacts the world around them? Certainly not, however, what this does mean is that as anthropologists, archaeologists, and bioarchaeologists, we have a rather nifty tool set to begin pondering these questions. While materiality and skeletal material alone cannot give us answers, incorporating examples of ethnographies, past knowledge, and oral histories we can begin to paint a picture of who an individual was.

Personhood in anthropology and archaeology is noted on how it relates to practice, what individuals do and how they "negotiate interactions in their lives" (Dornan-Fish 2012; Fowler 2016; Strathern and Stewart 2011). It also relates to the state or condition of being a person (Fowler 2016). Needless to say, materiality or skeletal material cannot give us all the answers or insight into this type of inquiry (Fowler 2016). Materiality and skeletal material are brought up here because it tends to be the central focal point within archaeology and bioarchaeological studies. This tendency to use material culture to fully interpret how an individual lives or who they were can lead to a misinterpretation of self or who these individuals were (Fowler 2016). An individual is multi-dimensional throughout all parts of their lives, so this should be taken into account when conducting a bioarchaeology of personhood.

Other fields of study may have varying interpretations about how personhood is approached but here it is two-fold. On the one hand it is an idealized social and structural conception of what an individual is and on the other what people do and how they negotiate interactions in practice (Clark and Wilkie 2006; Strathern and Stewart 2011). How an individual is perceived through gender, age, rank, race, and other identities, is what forms their persona (Clark and Wilkie 2006).

In archaeology, personhood provides not only an alternative for western notions of "self" but also provides an emphasis on humans as situated in a series of social interactions causing the human experience to be an embodied one (Clark and Wilkie 2006; Meskell and Joyce 2003). Within this frame of reference, we can begin to see where ethnographic studies, not just bioarchaeological ones, play an important role. They are able to shed light on these ideas of personhood (which we have noted can and do vary) and how they can show themselves throughout life in various ways (Clark and Wilkie 2006; Fowler 2016). The skeletal record alone, or materiality, cannot fully encapsulate all that is a person much less the idea of personhood, there is a need for multiple lines of evidence (Meskell and Joyce 2003). This is the concept then that is applied in this study through utilizing evidence from the human skeleton, politics, ethnographies, materiality, and geographic data.

In its most general approach, archaeology of personhood wants to note the different relationships in which a person finds "self" (Fowler 2016). In other words, within the same time frame a person can be seen, identified, and even feel different depending on who they are with, what they are doing or where they are. While personhood changes throughout time, this specifically illustrates how at a given point in time there can be different iterations of self as well as a constant negotiation of what the self is (Fowler 2004, 2016). In short, who we are and how others perceive us is a constant negotiation and always in flux (Fowler 2004, 2016). This does not, however, necessarily mean as researchers we will always be able to know or "measure" these different phases or perspectives as self, yet I would argue it is certainly a good start (Fowler 2016).

As discussed with life course, and will be noted below in embodiment, an individual's self or place in the world is a constant negotiation (Dornan-Fish 2012; Fowler 2016). It should also be noted that these negotiations do not happen in a bubble; they are influenced by things like age, sex, gender, life cycle, and kinship (Gilchrist 2012; Joyce 2001). Here I want to grapple with how individuals identify themselves or perceive themselves and their families. The individuals in this research have gone through trauma and other stimuli throughout their life course. This will ultimately impact how they see themselves and carry themselves throughout life. However, I would be remiss to exclude how this also impacts how they are recognized, approached, or identified within a social framework (Clark and Wilkie 2006; Fowler 2016). Much like was noted with life course theory and what we will note with concepts of embodiment, understanding personhood implicates centralizing an individual and granting them agency with their own lives (Tilley 2015). It allows for these individuals to be more than just skeletal remains or genetic profiles. It allows them to be an agent of their own lives with the ability to speak for themselves and be seen as an individual not just a statistic or part of a group. Everyone has their own story to tell and through this concept of personhood we grant the individual a social and political space (Fowler 2016; Wagner 2008).

EMBODIMENT

The theoretical perspective of embodiment analyzes the production and experience of lived bodies (Meskell 2000; Strathern and Stewart 2011). In archaeology, embodiment theory examines traces of bodily practices, idealized representations, and evidence of the effects of habitual gestures, postures, and consumption practices on the physical body (Hollimon 2011; Joyce 2005). This perspective represents an experience where natural, social, cultural, and physical phenomena interact with one another to produce what it is we see in the "social skin" (Fisher and Loren 2003; Meskell 2000; Strathern and Stewart 2011). It is important to understand and conceptualize the body as a social entity in order to truly understand the interplays within embodiment theory (Meskell 2000). In short, the body, mind, and experience should not be as separate but rather as interconnected (Low 2003; Strathern and Stewart 2011). Embodiment in general should also be read and understood within the context of the individuals being studied (Fisher and Loren 2003).

For example, as bioarchaeologists one of the first steps we take is conduct a biological profile of the individual from skeletal remains. However, knowing someone's sex, age, stature and so forth does not necessarily tell us who they were as an individual. Nevertheless, it does provide a basis to see how culture, society as whole, biological factors, and the environment impact and shape an individual (Joyce 2005). Embodiment also acknowledges the different identities and phases that a body can go through given different realities throughout life (Fisher and Loren 2003). A life which is in fact socially constructed and ever changing, making it oftentimes difficult to discern (Fisher and Loren 2003).

In its most general sense, embodiment theory first gained attention or reflection in archaeology through ideas of gender (Conkey and Spector 1984; Fisher and Loren; Joyce 2001, 2003, 2004, 2006, 2008; Voss 2000). It is no secret that archaeology in the past has been very male dominated. However, as time has progressed there has been more women in the field. The interpretations being made of individuals or groups in the past were not only western or Eurocentric notions, they were also made through the male gaze (Butler 2004; Boutin 2016). This contributed to a very narrow and one-dimensional understanding of the archaeological record (Joyce 2006).

Through the groundbreaking work provided by a feminist archaeology, there was a new pathway to interpret and see the archaeological record through a new non-male dominated lens (Perry and Joyce 2001). More so there was a space where there could finally be a conversation about understanding our own social, sexual, and gendered biases (Butler 2004; Joyce 2006; Lesure 2005; Perry and Joyce 2001). Through the use of embodiment theory and being able to think outside of our gendered and social norms, we are able to bring forth a theory of embodiment that also includes reflexivity of the researchers themselves (Joyce 2001). This also allowed there to be a space to finally "see" individuals and societies who had been ignored in the past (Joyce 2006; Lesure 2005). This includes looking at women, children, a third gender, people with disabilities or different abilities, and those of lower socio-economic status (Joyce 2001; Perry and Joyce 2001). With a feminist archaeology, the theory of embodiment was able to deconstruct not only past notions of how individuals should be studied but it also added a reflexive component on the behalf of archaeologists. It made us realize that the social roles we have now may not necessarily be those that we see in the past, which is why these individuals or groups should be viewed in context with other evidence (Fisher and Loren 2003). This all resulted in the ability to research the present topic, looking at those that are marginalized, discriminated against, and subject of constant social and political scrutiny.

In looking at individuals or groups, especially those that are deceased, it is not always easy or even possible to fully grasp who it is that they were during life (Joyce 2008). Someone's life; how they perceived themselves, how they felt, how they represented themselves, how they were seen by others; all these different ideas are not static. These self-identifiers and how some are identified by others can and do change throughout time (Harris and Robb 2012; Joyce and Lopiparo 2005). What's more is that as researchers we can and often do place our own interpretations of self on those that we study (Joyce 2008; Lesure 2005). Reflexivity in these cases is paramount in order to comprehend the multi-faceted expressions and sentiments that the human body and experience can have.

Various factors including the biological, social, and ecological reflect on an individual. This is not always visible in the archaeological or forensic record, but this is where the theory of embodiment can help. As a note, it can also be argued that these same factors can also influence how a researcher views an individual in the past (Lesure 2005).

Through reflexivity it may be possible to account for these external research stimuli in the interpretation of an individual, much like the theory of embodiment can as well (Joyce 2005). In being reflexive of our interpretations and how embodiment theory can help in more nuanced interpretations we need to first understand how repeated practices, not just new practices, shape who an individual is in life and in death (Joyce and Lopiparo 2005). Choices are made by individuals every day whether they be new or repeated and it is these choices, intentional or not (Dornan-Fish 2012; Joyce and Lopiparo 2005; Tilley 2015). By understanding this I would argue that a researcher can better situate themselves to understand how repeated practices become embodied in an individual. This then can be reflexive in how we interpret skeletal material as well as how we acknowledge and interpret what an individual themselves can tell us about their lives. In addition to this it is also vital that when applying embodiment theory we make sure to do so while taking into account the context and timing in which events happened (Fisher and Loren 2003). In this case, understanding when the individuals decided to cross the border, why, how they crossed, and if they were able to pass successfully or not. This is because we can then look back and see what the social framework was like not just in the US, but in their home country, a country which shaped them as individuals.

While there has been an ample amount of discussion on embodiment and how this can be applied to the archaeological record, here we are presented with something slightly different. Here we see individuals whose skeletal remains have been deceased for no longer than 20 years. We are also speaking with individuals who are still very much alive. So there does need to be a slight shift with how this is applied because we are allowing for more recent cultural, social, and environmental phenomena, which we may or may not be familiar with, to impact our interpretation of the lived experience. We are not dealing with the distant past, in fact we are dealing with individuals that may have been very well alive when we (the researcher) were. Contrary to the archaeological record we do have recent evidence and insight on what happened, but this doesn't mean that the same pitfalls do not exist, which is why it is imperative that we continue to view this information through an embodied lens.

LIFE COURSE, PERSONHOOD, AND EMBODIMENT THEORETICAL PERSPECTIVES

It has been argued that understanding or interpreting a population or cultural phenomenon versus that of an individual is easier to comprehend and see at the archaeological level (Meskell 2000). This is not an argument that will be taken up here, but rather it is brought up to exemplify the constant conversation and importance to understand those in the past at both a cultural/population level and at an individual level. While it is important to understand an individual's life through theoretical perspectives such as life course, personhood, and embodiment, the fact of the matter is that the culture

or environment that they are in impacts individual choices whether the individual is aware of this or not (Joyce 2005). These theoretical perspectives do not necessarily are considered in unison within this research to demonstrate the complicated interactions and relationships that occurred not only in the individual lives, but also in how the researcher will be interpreting this.

Life is interconnected, complex, and ever changing, which is how these individuals on their own and within a societal structure should be viewed (Lesure 2005; Meskell 2000). The overall meaning and goal here is to understand and extrapolate more on what an identity is, be it at the individual or group level (Fisher and Loren 2003). We want to understand why and how people act a certain way in our everyday lives, and this is no different than what we attempt to do in the archaeological record or in the field of forensic anthropology. The difference, however, is that many of these individuals are deceased and cannot speak for themselves, but here we are given that rare insight to speak to those that would fall in this "in-between" category of undocumented.

Understanding identity in general is a difficult concept to grasp. Who these individuals are, who they are within a cultural framework, how they are impacted by this cultural framework, and whether this is a positive or negative cultural framework is not easy to discern. While the overarching theme here is the impact of structural violence and what types of structural violence impacts an individual to need to leave, we need to actually understand an individual first. Who these individuals are and where they come from, the lives they led; these are all interpretations that we are making as researchers, so it is necessary to have accurate and appropriate theoretical knowledge and lenses to make these analyses.

An added layer to this discourse is understanding what we mean by the body. As the previous theoretical perspectives have demonstrated there is an array of ways in which we can understand and interpret the body (Harris and Robb 2012). In fact, interpretations of the body are not just seen differently among researchers, but among different cultures as well (Harris and Robb 2012; Low 2003). This makes it imperative to understand how we are interpreting the bodies within the society or cultural framework in which they (those we are studying) are from. The application of life course, personhood, and embodiment perspectives allow us to grasp these varying interpretations of the body to better understand the lived experience of these individuals within a cultural framework in which they belong.

Concepts of the body, an individual, the self, and agency are all interconnected with these perspectives. They are applied and defined in different ways, but overall provide the base framework for the current study. If we are to interpret and understand individuals, especially who they were in the past, it is important to take these varying perspectives into account. Intentionality (especially in agency) is vital to understanding the concepts of life course, personhood, and embodiment (Dornan-Fish 2012; Tilley 2015).

It provides the nexus for which the negotiations, which are constant, will then be used by a researcher in their interpretations (Fowler 2016). These interpretations will and can occur during a search of materiality, ethnography or bioarchaeological studies.

In applying all three of these theoretical concepts there is an opportunity to interconnect the skeletal, ethnographic, material, and geographical evidence that showcases the immensity and global crisis that is occurring at the US/Mexico border. This is not a small or simple issue, it is complicated in an array of arenas including politics, global economy, indigenous rights, health, sexism, ageism, accessibility to healthcare, and education to name a few. All these factors and then some play a role in how groups and individuals react to their surroundings and how structural violence can play a role in all of these further masking and entangling this web (Braveman and Barclay 2009). This makes it quite difficult to discern if such violence has occurred in any of these areas by only looking at the skeletal or only looking at materiality or conducting interviews. The fact of the matter is we need to look at this issue through various lenses including life course, personhood, and embodiment in order to untangle the entanglement and often invisibility that characterizes structural violence and how individuals and groups encounter it.

CHAPTER 4 STRUCTURAL VIOLENCE: A BORDER CRISIS

INTRODUCTION

This chapter looks at defining the word, 'violence', and how difficult this can be given that the definition of violence can shift depending on context and field of study (Barth 2002; Galtung 1969). Here, violence is defined generally as an external influence negatively affecting an individual's physical and psychological well-being in a way that is noticeable on the human body (Galtung 1969). This general definition allows for questions on how culture, biology, and the environment can aid or buffer different forms of violence over the life course of any individual.

In bioarchaeological studies there has been a tendency to sensationalize violent injuries and conduct osteobiographies of these events in hopes of shedding light into the tortuous life of an individual. However, in this research the focus shifts from this physical form of violence and instead focuses on the root causes and effects of a particular type of violence, structural violence. Looking into structural violence, rather than physical violence alone, allows there to be a discussion of the historical long- and short-term impacts of violence.

Defining the word 'structural violence' poses difficulties given its broad use throughout different academic fields (Barth 2002). Here structural violence is defined broadly as, a range of social inequalities that can range from racism, gender inequality, social inequality, and political suppression, which in turn negatively affect an individual's physical and psychological well-being (Farmer 2003). This terminology is then used in conjunction with those individuals who have crossed the US/Mexico border. This adds another level of specificity to the definition since the structural violence occurring within this group of individuals may differ from that experienced by others in different geographical areas.

Bioarchaeological research hopes to make the connections between structural violence and the impact it can have on an individual over the life course. In doing so this results in predictable and identifiable skeletal lesions and markers, which will be discussed at length in this research. While the focus in bioarchaeology has historically been on descriptive research, contemporary studies are more question based and theoretically-grounded studies, are exemplified by life course studies (Sofaer 2006). The interest has begun to shift on the social and cultural motivations behind behaviors, in this case structural violence (Agarwal 2016; Agarwal and Glencross 2011; Goodman and Martin 2002; Klaus and Tam 2009; Piperata et al. 2014; Sofaer 2006; Temple 2014). Bioarchaeologists are able to view the human skeleton through the life course by identifying habitual patterns, actions, and differential life experiences of an individual skeleton (Sofaer 2006).

This research expands on previous research and provides insight on the fruitful studies that can be applied to social science, to NGOs, policy makers, and other international and national organizations to address the issue of structural violence (Reineke and Halstead 2017). Bioarchaeological research is a powerful tool to expand on structural violence, but it does have its own limitations which enables there to be additional lines of evidence in order to extrapolate on this issue, of which is addressed below. It is in the realm of human rights where anthropologists and bioarchaeologists alike can contribute the most in order to influence actual discussion and change on current and past violations of human rights due to structural violence.

The theoretical foundations of bioarchaeological work on structural violence is based on work of anthropologists such as Scheper-Hughes (1992), Scheper-Hughes and Bourgois (2004), Holmes (2013), De León (2015), Manz (1988, 2013), and Martin and Harrod (2015). These seminal works have expanding anthropological perspectives on the study of both physical and structured violence in various countries (De León 2015; Holmes 2013; Martin and Harrod 2015; Scheper-Hughes 1992; Scheper-Hughes and Bourgois 2004). The use of skeletal data alone, however, is not sufficient to delve into the complex web of structural violence (Klaus 2012; Reineke and Halstead 2017). Instead, skeletal data here is used in conjunction with research by fellow social scientists to lay the research framework.

The use of oral histories, political histories, archives, and artifacts helps bioarchaeologists be better equipped to understand the political and social entities that put in place structures of violence that affect primarily marginalized groups (Leatherman and Goodman 2019; Martínez et al. 2014; Soler and Beatrice 2018; Soler et al. 2022). This research can become quite complicated given that structural violence is typically propagated by people of power, who at times can be difficult to identify and therefore be held accountable. Of specific interest is the current wave of immigrants at the United State/Mexico border within the last 20 years (Martínez et al. 2014; Soler and Beatrice 2018; Soler et al. 2019). Skeletal stress indicators propagated by structural violence can be used to give credence to the humanitarian crisis occurring in various Latin American countries, leading to mass migrations (Beatrice and Soler 2016; Cameron 2016; Doretti et al. 2017; Joyce and Stover 1991; Martínez et al. 2014; Soler and Beatrice 2018).

These stressors are indicative of the difficulties these individuals face in their home countries, leading them to seek relief in the US (Beatrice and Soler 2016; Doretti et al. 2017; Soler and Beatrice 2018). Skeletal indicators along with oral histories, historic and political evidence help corroborate the ingrained structural violence in these countries (Beatrice and Soler 2016; Leatherman and Goodman 2019; Soler and Beatrice 2018; Soler et al. 2019). It is with this frame of reference that this research seeks to understand the varying intersections of structural violence (Reineke and Halstead 2017). It is just as important to understand that structural violence need not only show itself as a political phenomenon.

The cultural, emotional, and social tolls it can characterize can be just as damaging physically to many of these individuals and even groups. This can at times be difficult to grasp for bioarchaeologists since much of our work tends to rely solely on the examination of human skeletal remains and the geographical context in which these are found.

The concept and application of structural violence and its research was not necessarily born within bioarchaeology, which is why it is necessary to first understand how the concept came about and how it was originally utilized (Klaus 2012). This explanation is followed by a brief overview of the similarities and differences when referencing stress versus structural violence (Barth 2002; Klaus 2012). Given that the term stress and structural violence are often used interchangeably in bioarchaeology, it is important to differentiate between them and understand how stress indicators can be used as evidence for the larger form of structural violence. This is followed by an overview of the effects structural violence can have on an individual's health, not only on the bone but soft tissue as well. While the effects of soft tissue may not seem important at first in bioarchaeological studies, these lesions are actually quite important given that skeletal impacts are often a secondary symptom or consequence of these soft tissue lesions. This will then transition into a brief discussion of how structural violence is studied and applied within bioarchaeological research.

This chapter will conclude with an overview of how life course theory, personhood, and embodiment, can be applied to questions of structural violence. Violence, be it structural or physical is not static, it progresses through time. Through these theoretical frameworks there can be a better understanding on how this progression or lack thereof structural violence impacts not only individuals but groups as well (Ben-Shlomo and Kuh 2002; Gowland 2015; Sofaer 2006).

STRUCTURAL VIOLENCE

Structural violence can encompass physical violence as well as violence that is interpreted as traumatic, or the inability of an individual to thrive (Klaus 2012). While many scholars have interpreted structural violence in various ways, here the original definition and process as described by Galtung (1990) will be used. Structural violence is interpreted here as a wide range of social inequalities that can range from racism, gender inequality, social inequality, and political suppression (Farmer 2003:8). Galtung expands on this concept by introducing the term cultural violence (Galtung 1990). It is this idea of cultural violence which tends to justify structural violence, by making it seem to be a normal process (Galtung 1990). It normalizes this process of structural violence in such a way that it is often overlooked or justified by both the perpetrators and the victims. One of the interesting phenomena in structural violence is that those on the receiving end, and those who are the "aggressors" can normalize the pain and suffering of a group (Farmer 2003). This normalization is deadly, because it makes structural violence invisible, therefore difficult to

address as an issue. Even more problematic is that with structural violence being normalized it can often be overlooked given that it is a constant process and sometimes can appear to be "tranquil" (Galtung 1969, 1990). It is certainly not immediate; it progresses slowly until the point where individuals find themselves unable to thrive.

Potentially capturing these patterns or pauses between structural violence over the course of someone's lifetime, is where bioarchaeologists may offer insight. It is also argued here that it is this structural violence that pushes individuals to migrate. Structural violence, which becomes normalized can also change as an individual's position or status in life changes, adding an additional layer of complexity in its identification (Ben-Shlomo and Kuh 2002; Sofaer 2006). Being able to identify structural violence is the first step in unraveling the abuses to basic human rights (Farmer 2008). For the purposes of this research the government or other type of ruling agency that can negatively affect an individual's well-being is implied to be part of this structure of violence (Farmer 2003).

Individuals' experience can include exposure to suffering in a variety of ways at different points in their life. Does this mean it is always due to structural violence? Certainly not, which is what makes it complicated to discern what specifically may be caused by structural violence. Individuals experience and are exposed to suffering in different ways, making it difficult to quantify. However, bioarchaeologists are borrowing from their social anthropology peers, such as Holmes (2013) and De León (2015) to value the experiences and histories of structural violence victims as part of their research (Beatrice and Soler 2016; Martin and Harrod 2015, 2016; Martin et al. 2012; Soler and Beatrice 2018; Soler et al. 2019). In other words, bioarchaeologists have integrated not only a quantitative approach but they have come to find that a qualitative approach is also vital to understand this phenomenon given its frequent invisibility (Beatrice and Soler 2016; Klaus 2012; Martin and Harrod 2016; Martin et al. 2012).

For example, Scheper-Hughes (1992) goes into depth about similar biological, cultural, and political challenges in the country of Brazil that perpetuate structural violence, and how these challenges affect the realm of public health (Scheper-Hughes 1992). Holmes explains how migrant labor is often exploited in the US and how it contributes to structural violence post-migration for these individuals by impacting their access to fair wages, health care, housing, and food. Both Holmes and Scheper-Hughes have set an integrative approach using biology, culture, and politics to understand the underlying motivators for structural violence with vulnerable populations, and the health repercussion associated with their vulnerability (Holmes 2013; Leatherman and Goodman 2019; Scheper-Hughes 1992; Scheper-Hughes and Bourgois 2004). The foundational work contributed by Holmes and Scheper-Hughes has also paved the path for anthropologists such as De León (2015), and Martin (2012, 2015, 2016) to discuss the continuing social, political, economic, health, and skeletal implications propagated by structural violence (Leatherman and Goodman 2019). These anthropologists and bioarchaeologists have aided in structural violence research by

not only looking at one particular methodology, but by incorporating methods from within anthropological research as well as that of other disciplines. This social aspect along with skeletal markers of stress, place bioarchaeologist in a unique position to explore structural violence at a cultural and biological level (Leatherman and Goodman 2019).

In an effort to provide validity to the issue of humanitarian crisis produced by structural violence, bioarchaeologists should compile skeletal evidence in conjunction with ethnographic, historical, political, and environmental factors (Cameron 2016; Farmer 2003; Leatherman and Goodman 2019; Wylie 2002). However, this is not often the case where this research can contribute to the investigation of structural violence and its impact on the mass migration crisis at the border. The next section addresses how bioarchaeologists have addressed these various complex issues in the past and how these methods and theoretical strategies have changed over time in order to help understand populations encountering structural violence.

DIFFERENTIATING STRESS AND STRUCTURAL VIOLENCE

Using the phrases, "stress indicators" and "structural violence" can become convoluted as researchers often conflate the two, and varying definitions are given to each. Here stress indicators are defined partially as a "biobehavioral response to environmental conditions" (Goodman et al. 1988:171; Reitsema and McIlvaine 2014). To some extent the use of stress within this context is grounded through the work of Selye (1950:197) and his concept of "The General Adaptation Syndrome." According to Selye (1950) stress, in its most general form, consists of three stages: alarm reacting, stage of resistance, and stage of exhaustion (Selye 1950). These three stages can be nonspecific responses of the body to any demand that is placed upon it (Selye (1973). Stress is also conceptualized within this framework as not necessarily something that is negative or positive, although it can certainly be both (Selye 1950). The body ultimately needs some form of stressor in order to survive, so in general the human body always experiences some form of stress (Selye 1973). This concept of stress should therefore be seen as neutral, and only be viewed as a negative within the context of structural violence.

For example, when you have dinner, your body, whether you know it or not, becomes stressed because it needs to absorb the nutrients of your dinner and dispose of what it does not need (Selye 1973). We can also use the example of running, while running is great exercise it causes your body to stress and make your heart pump at a higher rate (Selye 1973). While these do not seem like stereotypical examples of stress, they are in fact metabolically stressful to your body, however, these are perfect examples of how stress does not need to be associated with negative responses in the body. Again, Selye argues that stress is necessary within the body, because it helps us adapt and survive (Selye 1973).

In addition, we must take into account human frailty (hidden heterogeneity), meaning that not all people will react the same to a stressor (Selye 1950). For instance,

structural violence may have a more negative health effect on a certain individual if this person has genetic predisposition to illnesses, or if the individual in general has poor health (Agarwal 2016; Goodman and Martin 2002; Selye 1950). Alternatively, another individual may show more resistance to a stressor, caused by structural violence given that they find themselves in good health and in an environment that provides them with access to proper healthcare, and/or if their mother had a healthy pregnancy with them, also known as cultural buffers (Goodman and Martin 2002). It is also important to acknowledge that individuals are not necessarily dealing with a single stressor or a single form of structural violence, these may be multiple, making it harder to pinpoint specific stressors in the bioarchaeological record (Goodman et al. 1988).

The human body should always be seen as adaptive, never static, which means it will react to a given stressor throughout an individual's life course (Gilchrist 2000; Goodman et al. 1988; Sofaer 2006) This is why it is also important to acknowledge the plethora of factors and points of an individual's life where structural violence can manifest itself into bodily stressors (Goodman et al. 1988). Many of the bony responses we see as a cause of structural violence can also be seen as part of stressors not produced by structural violence, but instead due to things such as environment, diet, trauma, and genetics (Larsen and Ruff 2011). However, in looking at additional factors besides human bone, researchers can use various sources of information to understand the cultural and social systems at play (Klaus and Tam 2009; Temple 2014). Once these are considered it can become clear whether structural violence was present and contributed to these indicators of stress present in a given population.

One of the biggest issues with describing or discussing structural violence is that it is difficult to quantify (Farmer 2003). It is also commonly conflated with other conditions such as physical violence (Klaus 2012). With the former, this lack of distinction is common, especially given that physical violence and structural violence often go hand in hand (Klaus 2012). In the skeletal record we are noting that just because we are not seeing typical forms of violence such as breaks, fractures, or stab wounds, does not mean a group of people were not experiencing violence. Violence alone should not be just reduced to physicality, violence can be cultural, environmental, and political (Leatherman and Goodman 2019; Pérez 2012). Structural violence, like with physical violence, produces signs on the skeleton. In the case of structural violence these are produced by the external stressors encountered. Likewise, the emotional and social repercussions of structural violence throughout someone's life should not be discounted either.

While stress has varying definitions within the bioarchaeological and anthropological community, here we want to explore stress as a specific consequence of structural violence. There is a difference, albeit it may not seem apparent at first, between looking at skeletal markers of stress versus looking at skeletal markers of structural violence. Various bioarchaeologist and biological anthropologists have also described

skeletal stress markers, similar to those of structural violence that can be attributed to factors such as maternal health, habitual activity, fractures, metabolic conditions, environment, biology, and disease (Larsen 2018). For instance, environmental or biological constraints may be to blame for poor health including, which can show in the skeleton as linear enamel hypoplasia, stunted growth, carious lesions, and bone loss (Goodman and Martin 2002; Larsen and Ruff 2011; Leatherman and Goodman 2019). While these can certainly occur with stress, it is contextual data that allows researchers to differentiate, as best they can, between a stressor, and a stressor caused by structural violence. This research focuses on these additional factors in order to create a more accurate narrative that allows for those who experience structural violence to speak on their own behalf about their experiences. This along with skeletal data is what allows there to be a true anthropological approach to structural violence.

Cultural systems can serve as buffers or inhibitors to these stressors and depending on the role the larger cultural or social system play, the more evident it becomes if structural violence was a cause rather than stress alone (Goodman and Martin 2002; Larsen and Ruff 2011). It is important to acknowledge that stressors indicative of structural violence can and have been evaluated as being part genetic, environmental, biological, and social factors that do not represent structural violence. It is contextual histories, and additional lines of evidence that implicate the existence of structural violence within a population that then allow for the evaluation of stressors in this context (Leatherman and Goodman 2019).

Health Impacts of Structural Violence

Structural violence does not immediately alter bone shape or composition. There is a large psychological and mental component to structural violence that is encountered before one can note a skeletal response, which is noted in this research (Camacho 2008). However, since a bioarchaeologist is not able to speak with the deceased, all that is left to work with is the skeletal remains. This does not mean, however, that we cannot view and interact with contemporary populations who are experiencing similar situations. It should be noted, however, that this has been done with several agencies and individuals such as medical examiner's offices, forensic anthropologists, bioarchaeologists and NGOs (DeLugan 2012; Manz 1988; Martínez et al. 2014; Pine 2008). Within this present research all of these avenues will be explored: skeletal, social, political, and material.

Like many conditions stress produced by structural violence first affects the soft tissue and if the conditions persist, it will begin to manifest in the skeleton. For example, if someone is denied the ability to provide adequate nutrition for themselves, they may develop anemia, which over time will begin to show in the skeleton as cribra orbitalia or porotic hyperostosis (Gowland 2015). These primary stressors can in turn bring secondary health issues that are also responses to physical and mental stressors brought

on by structural violence (Goodman et al. 1988; Klaus 2012; Table 4.1). It is also important to note that individuals who experience structural violence are not necessarily exposed to a single stressor, there can be multiple stressors occurring simultaneously (Goodman et al. 1988). This along with susceptibility at different life stages intersects to produce a complex skeletal image of structural violence.

Table 4.1. Summary of Individual Components and Measures of Stress in Living Populations (Goodman et al. 1988:194).

COMPONENTS OF HEALTH AND WELLBEING	INDICATORS	TECHNIQUES
PSYCHOLOGICAL		
1. Satisfaction levels in a job, home etc.	Subjective assessment Use of psychotropic drugs	Questionnaire, interview Questionnaire, interview, medical record
2. Fatigue and sleep patterns	Subjective assessment of fatigue Duration, continuity, and regularity of sleep Use of sleep tablets/stimulants	Questionnaire, interview
3. Sensorimotor abilities	Vigilance, reaction times, concentration, manipulatory skills, etc.	Standard psychological performance and vigilance tests
4. Psychiatric status	Evidence of past psychiatric disorders	Psychiatric examination: interview and questionnaire; medical record
PHYSIOLOGICAL		
1. Physiological fitness	Work capacity and pulmonary function Muscle strength and physical performance Habitual physical activity, energy expenditure.	Ergometry (V02 max.); spirometry (FEV, FVC) Dynamometry; performance tasks (Harvard step etc.) Questionnaire, diary, direct/indirect calorimetry (respirometer/SAMI)
2. Stress reactivity (psychophysiological)	Urinary and salivary catecholamine, and corticosteroid levels Blood pressure.	High-performance liquid chromatography (HPLC) Radioimmunoassay (RIA) Medical examination
3. Nutritional status, growth and physique	Nutrient intake, quality, and quantity Body build and composition Sexual maturity, dentition Metabolic functions Evidence of deficiencies or excesses.	Intake survey, diary, recall questionnaire Anthropometry, photogrammetry Puberty rating, dental examination Urine and blood biochemistry (serum protein, etc.) Physical examination (goiter, obesity, rickets etc.) Medical examination, questionnaire, medical record
4. Infectious disease status	Evidence of current infection Evidence of past infection Immunological status, artificial, natural.	Antibody testing, medical record
5. Noninfectious disease status	Evidence of current morbidity Inherited defects Visual, auditory, olfactory acuity.	Medical examination (including biochemistry), medical records, questionnaire Medical examination, cytological tests Tests and physical exams

As previously noted, at different points in an individual's life, depending on things such as age, sex, gender, or social status, individuals can also experience different types of stressors (Agarwal 2016; Ben-Shlomo and Kuh 2002; Goodman et al. 1988; Gowland 2015; Martin and Harrod 2016; Mayer 2009; Sofaer 2006). These can and will change, as a consequence of an individual's exposure to structural violence changes as well.

Given current ethnographic work in countries where structural violence is ongoing, researchers have noted that it goes through several phases (De León 2015; Holmes 2013; Scheper-Hughes 1992; Scheper-Hughes and Bourgois 2004). The exposure and severity of structural violence can also be more stressful at certain points in time depending on factors such as politics, economy, and environment (Joyce 2005; Scheper-Hughes 1992; Scheper-Hughes and Bourgois 2004). This occurs because of an individual's social, political, and economic positions that change throughout their life course (Leatherman and Goodman 2019).

Structural Violence Applied to Bioarchaeology

In bioarchaeology and to a larger extent in anthropology it is important to acknowledge the history, biology, political, and environmental components that propagate structural violence (Barth 2002:308; Leatherman and Goodman 2019; Wylie 2002). Several anthropologists and bioarchaeologists have addressed this very issue, leading the path to new questions and areas of concern within the study of structural violence (Beatrice and Soler 2016; Klaus and Tam 2009; Latham and Daniel 2018; Martin and Harrod 2015, 2016; Martínez et al. 2014; Scheper-Hughes 1992; Scheper-Hughes and Bourgois 2004; Soler and Beatrice 2018; Temple 2014). Structural violence, as applied to bioarchaeology, is interpreted here as a wide range of social inequalities that can range from racism, gender inequality, social inequality, and political suppression (Farmer 2003:8). It is the entities that promote and help sustain structural violence, who aid in the violation of basic human rights. This issue of human rights also puts into questions the definition of human rights, which can also vary depending on the researcher and area of study (Farmer 2008:40).

There are many definitions for human rights stated in documents including the United Nations General Assembly's "Universal Declaration of Human Rights (1948)," the International Committee of the Red Cross's "The Geneva Conventions of 1949," and the American Red Cross's Development of International Humanitarian Law (2011), just to name a few. Within this framework the definition given by International Covenant on Civil and Political Rights (1966) will be used, which defines human rights as the following,

> "… Human Rights recognize that the ideal of free human beings enjoying freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy civil, cultural, economic, political and social rights…"

While this definition of human rights is certainly not all-encompassing, it does provide a clear understanding on how the violation of these human rights is indicative of the larger structural violence issue.

Structural violence within bioarchaeological studies is closely tied to humanitarian issues, given that the former offers insight into the long-term

consequences of structural violence (Farmer 2003). Bioarchaeologists can aid in connecting the physical and long-term bodily impacts of structural violence within individuals, through skeletal markers. This leads to a collaboration with humanitarian efforts in addressing issues that have been propagated by people in power, usually a government. As previously mentioned, humanitarian organizations can include the International Committee for the Red Cross, the American Red Cross, the United Nations. At a more local level, for example at the Mexico/US border where structural violence has led to various human rights abuses there are active agencies and NGOs helping in these efforts including: the Colibrí Center, Aguilas del Desierto, No Más Muertes, South Texas Human Rights Center, and PCOME, just to name a few.

Structural violence takes on different forms and can change depending on the current economy, politics, environment, genetic disposition, and an individual's shift in, social status, gender, sex, and age (Agarwal 2016; Cameron 2016; Klaus 2012; Knudson and Stojanowski 2008; Leatherman and Goodman 2019; Piperata et al. 2014; Sofaer 2006; Soler and Beatrice 2018). It takes shape in the inability to have proper access to healthcare, nutritious food, clean water, sanitation, housing, and safe environment (Klaus 2012). But what makes this inability of access transform into structural violence? It's the fact that these things are avoidable and yet they continue to happen in order to satisfy those individuals known as the "aggressors" (Galtung 1969:172). It is the embodiment of social injustice and how it is created, how it changes, and how it maintains its power long enough to leave scars on the human skeleton. Figure 4.1 offers a visualization of Galtung's interpretation of the different ways structural violence can manifest (1969).

Various bioarchaeologists including Martin and Harrod (2015, 2016), Klaus (2009), as well as Soler and Beatrice (2018) have focused on the issue of structural violence in different geographical locations. Soler and Beatrice address the methodology needed to approach structural violence skeletal indicators, while Martin and Harrod (2015) along with research conducted by Klaus (2009) provide a deeper theoretical understanding on the connection between skeletal stress indicators and structural violence. The training as bioarchaeologists and to a larger extent anthropologist has aided these researchers in understanding the political and social context playing into the structures that ultimately betray their constituents by not supplying them with their most basic needs (Leatherman and Goodman 2019).

Not all structural violence is the same, some experience this in the form of inability to have proper healthcare, others as the inability to have proper access to food (Klaus 2012). It is in looking at these background factors, and the different players influencing this structural violence that we can begin to find a pattern, a pattern that will also begin to show itself in the bone at different stages of an individual's life. Bioarchaeologists are then tasked with identifying these different markers of stress caused by structural violence and connecting them to additional external and internal factors that facilitate this violence to occur.

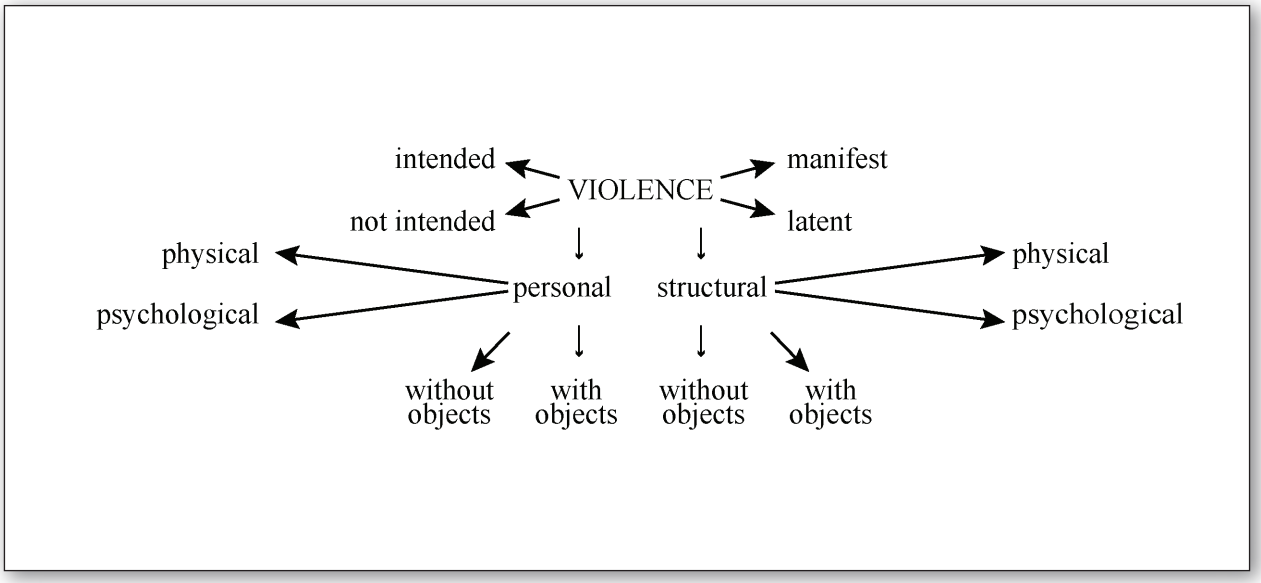

Figure 4.1. Types of Violence (Galtung 1969:173).

For example, a child does not receive proper nutrition, however when the child goes through a cultural threshold identifying them as an adult, the way they are treated may change. If this person does not experience structural violence in their adulthood this does not mean that the evidence of it occurring in their childhood is erased. This can also be applied to children that were well nourished and not exposed to structural violence but were exposed to structural violence and malnourished during their adult years. While markers of structural violence, in the form of stress markers may not be present for their subadult years, these skeletal indications of stress would be viewable as part of their adult skeletal growth patterns.

Through bioarchaeological analysis, researchers can pinpoint the age frame when the individual began to encounter structural violence. When we are able to connect skeletal data, environmental data, biological data, and socio-political data; this can give us insight as to when structural violence may have occurred and its duration (Leatherman and Goodman 2019). Bioarchaeologists are able to show evidence of the long-term suffering of individuals throughout their lives, not just at specific points in time. This information can then be applied to additional cases of structural violence to address the reality of this otherwise politically disguised violence.

CHAPTER 5 MATERIALS AND METHODS

INTRODUCTION

Bioarchaeologists use skeletal analysis as well as archaeological, ethnographic, historical, and political records to give a more complete story of how structural violence shapes populations and how it continues to affect its people (Leatherman and Goodman 2019; Martin and Harrod 2016; Piperata et al. 2014). This research utilized this methodological approach in order to understand and look at the varying types of structural violence and how it can manifest in the social realm as well as the biological. Lines of evidence include skeletal analysis, family ethnographies, artifacts (i.e., the things they carried), and geographical location. Data for these various avenues was acquired through PCOME, Colibrí Center, Humane Borders mapping data, interviews, and analysis conducted by the researcher. There will first be an explanation of the skeletal sample and methods used in this research. A brief overview will be given of the biological profile as well as other methods used to access the health patterns and demographic information. Next is an explanation of the ethnographic component of this research. Specifically, why it was deemed necessary to include, how it was collected, and considered in conjunction with skeletal data. Tied closely with the ethnographic data is the material culture or "artifacts" associated with these individuals. This material culture, also known as "things they carried" helps shed light on the activities, necessities, and emotional underpinnings of the treacherous border crossing. This considered both physical objects recovered with skeletal remains, as well as information from ethnographic interviews. Lastly, mapping plays an important role in this process as it allows us to see patterns and corridors in which certain groups of people decide to cross. This can and often does lead to information about these groups' place of origin. Increasingly, researchers are aware that certain passing corridors are chosen more frequently depending on the personal connections or established relationship individuals have, which is often based on their location of origin. Mapping data was located from several avenues and will be discussed later in the chapter.

SKELETAL SAMPLE

It should be noted that only limited photographs of skeletal remains from unknown deceased individuals examined in this study will be shown in this dissertation. In the methods chapter examples of specific pathological lesions of previously published archaeological samples that have appropriate permissions are used. It was felt that all of these individuals regardless of identification potential have been exposed to structural violence, which diminished their personhood in many ways and for various reasons led them to make the hard decision of leaving their homes and crossing the very dangerous

US/Mexico border. Their lives and bodies have been marred by exploitation, as such I felt it was important out respect and dignity for these individuals and their families, to not show gratuitous images of their remains However, modified skeletal tissue is shown in the case of histological thin sections in order to demonstrate taphonomic Wedl tunneling. These images however are not individualistic in nature, and are specific to this skeletal sample, so were used to display the occurring of Wedl tunneling.

The skeletal samples in this project were obtained by PCOME in Tucson, Arizona, from unidentified individuals found on the US border. Various areas of the skeleton have been noted to be impacted by biological or metabolic stressors. Structural violence can be one of the factors that lead to biological and metabolic stressors. Through time, these biological and metabolic stressors can begin to impact the health of the human skeleton. These may include, but are not limited to, linear enamel hypoplasia (LEH), cribra orbitalia (CO), porotic hyperostosis (PH), carious lesions, stunted growth, and poorly healed fractures (Agarwal 2016:133; Beatrice and Soler 2016:1165; Gowland 2015:536; Klaus 2012:42). While not all forms of structural violence are manifested in the skeleton, repetitive and long-term stressors brought on by structural violence may through time impact an individual's body (Reichman 2006:69). It is also important to reiterate that these markers of stress have also been linked to other factors such as metabolic stressors, making the context as important in this area of research as the skeletal analysis. In addition, taphonomic concerns were noted within this skeletal sample given that these remains were often exposed for extended periods of time to the elements. This made identification of individuals and stress markers sometimes difficult to discern. The impact of taphonomy on skeletal analysis is also noted later in this chapter.

All initial skeletal data was acquired from the Forensic Anthropology Reports (FAR) from PCOME. This data was then used as a basis point for me to confirm the data presented in the FAR report and note and record discrepancies or additional information. This data review and collection was conducted in the summer of 2019. PCOME forensic anthropologists Drs. Jennifer Vollner and Bruce Anderson conducted the original FARs. These FARs are conducted for every individual noted as an undocumented border crosser (UBC) and provide basic biological profiles of each individual. A total of 63 FARs were utilized in this study. The information noted in the FAR report and any additional information collected is listed in Table 5.1.

PCOME also collected information regarding the material items found with deceased individuals (which are here noted as artifacts), as well as the location where the individual was found. Photos are also provided by PCOME as well as dental X-rays and skeletal X-rays if pathological conditions or fractures are noted. See Table 5.1 for a complete list of information noted by PCOME.

Table 5.1. Skeletal Information provided in PCOME FAR Report and Applied to Study.

Age
Sex
Ancestry
Caries
Linear Enamel Hypoplasia (LEH)
Dental modifications (fillings or amalgams)
Cribra Orbitalia (CO)/Porotic Hyperostosis (PH)
Trauma/Pathologies/Fractures
Location individual was found
Artifacts ("Things they carried")
Tattoos or other type of body modification
Photographs
Rib sample (histological analysis)
Skeletal X-ray (if fracture or pathology is noted)
Location individual was found

THE BIOLOGICAL PROFILE

It should be noted that age, sex, and ancestry were all estimated according to Buikstra and Ubelaker standards (1994) when they were noted and recorded by PCOME and myself. Ancestry was adapted by Hefner and Linde's macromorphoscopic cranial traits and also included in the FAR reports by PCOME forensic anthropologists (Hefner and Linde 2018). In general, the more methods that can be applied to each category of age, sex, and ancestry estimation the more accurate the estimate becomes. This being said, the state of remains at PCOME did not always allow for all methods to be applied, however, when possibly they were in order to gather a more holistic view of who these individuals were. While Buikstra and Ubelaker (1994) were used as a whole to estimate age, sex, and ancestry, there were times when new types of methodologies (not included in Buikstra and Ubelaker 1994) were utilized, specifically when it comes to ancestry. For each individual, PCOME made sure to note specifically what methods were able to be applied and include the methods noted below.

Age

Age was estimated using methods adapted from Brooks and Suchey (1990) and Iscan et al. (1985) using Buikstra and Ubelaker's standards (1994). Nonmetric methods included looking at traits in the pelvis and crania. The nonmetric traits were used when available and include looking at the pubic symphysis, auricular surface, and cranial suture closure (Buikstra and Ubelaker 1994). The pubic symphysis is noted through morphological changes in five different phases. However, with this methodology adapted from Brooks and Suchey (1990) there is a difference in female and male morphology, so it is important to first note whether then individual is a male or female prior to using this method (Buikstra and Ubelaker 1994). Similarly, the auricular surface

of the os coxcae also notes systematic age-related changes that can be tracked for age progression (Buikstra and Ubelaker 1994). This method applies eight different auricular surface phases that can aid in age range determination; for example: Phase 1=Ages 20–24; Phase 4=Ages 35–39; Phase 8=Ages 60+ (Buikstra and Ubelaker).

The third nonmetric method applied for aging was cranial suture closure. A total of 14 ectocranial sutures were noted in order to give a suture closure score that ranges from unobservable to 0–3. A score of 0 indicates there is no evidence of any suture closure (i.e., the suture is open), while a score of 3 indicates complete obliteration of the suture (i.e., the suture is closed; Buikstra and Ubelaker 1994). A higher score indicates an adult while a lower score would give indication of a younger individual. The specific sutures that are noted here are described in full in Buikstra and Ubelaker (1994) and include: Lambda, bregma, midcoronal, superior sphenotemporal, anterior medial palatine suture, and transverse palatine (again, this is not an exhaustive list; Buikstra and Ubelaker 1994). Not all of the individuals had the needed skeletal elements present to utilize all of the three mentioned methods for ageing. These were only used when possible.

Sex

Sex was estimated using the Phenice (1969) pelvic nonmetric traits, as well as noting and scoring the greater sciatic notch and the preauricular sulcus, when available (Buikstra and Ubelaker 1994). Given the state of remains from PCOME many times the pelvis was not available for observation, this is when cranial nonmetric information was used for estimation. If both pelvic and cranial traits were available, they were both used (Buikstra and Ubelaker 1994). There were two main ways in which the pelvis was examined for sex estimation. The first nonmetric traits take a closer look that the subpubic region (Buikstra and Ubelaker 1994; Phenice 1969). It scores the ventral arch, subpubic concavity, and the ischiopubic ramus ridge (Buikstra and Ubelaker 1994). These areas are then scored in the following manner: 1=female; 2=ambiguous; 3=male; and a blank is noted for those that are not observable (Buikstra and Ubelaker 1994). The second way the pelvis was utilized in sexing was by viewing the shape (or broadness) greater sciatic notch. The scoring scale ranges from 1–5, with a score of 1 being the most obtuse (female), and 5 being more acute (male; Buikstra and Ubelaker 1994). The third way the pelvis was used was by looking at the preauricular sulcus, which is thought to appear more commonly in females than in males (Buikstra and Ubelaker 1994). The scoring here is noted from 0–4, with 0 being an absence of a preauricular sulcus. Scores that range from 1–4 indicate the different representations that a sulcus can be noted; for example, a 1 would indicate a wide sulcus, while a score of 4 would note a narrow, shallow, and smooth-walled sulcus (Buikstra and Ubelaker 1994). If all three methods could be used, they were, and were used to make a sex determination.

Another way that sex was estimated, again if available, was through cranial nonmetric features. Specifically, five areas of the skull were noted: nuchal crest, mastoid process, supra-orbital margin, supra-orbital ridge/glabella, and mental eminence (Buikstra and Ubelaker 1994). Scores for all five features are noted from 1–5. A score of 1 indicates a minimal expression of the features, where a score of 5 indicates a more pronounced feature expression. The lower the scores (i.e., closer to 1) the more likely the individual displays typical female characteristics; the higher the score, the more likely the individual displays typical male characteristics (Buikstra and Ubelaker 1994). The pelvic and cranial evidence is considered in unison to determine whether the individual is more likely biological male or female. The more lines of evidence noted for sex, the higher the probability the individual is of the estimated sex.

Linear Enamel Hypoplasia

Dental LEH are seen as bands of decreased enamel thickness on the labial area of the tooth, that is reliably associated with genetics, localized trauma or systematic metabolic stress during growth and development (Goodman and Rose 1990:64; Klaus and Tam 2009:359; Temple 2018:240). This decreased thickness is a tradeoff response when an individual's body is not in homeostasis (Cares and Oxenham 2018; Temple 2018:239). Given that tooth enamel never changes with time once formed or remodeled like bone, its presence on a tooth demonstrates a disruption in ameloblastic formation given an external stressor (Goodman and Armelagos 1988:93). Further, human teeth begin to form and grow at known times, and as such the hypoplastic markers on a tooth can be correlated with an estimate of when the stressor likely disrupted enamel formation. While LEH does not have a specific etiology, it can aid in identifying general periods of stress during tooth crown development (Cares and Oxenham 2018; Merrett et al. 2016; Figure 5.1).

As discussed in previous chapters, according to Selye's stress response, we know that LEH forms due to an external stressor causing the body to redistribute energy to more vital organs, therefore sacrificing enamel, which for the body is a more reasonable tradeoff (Hillson 2008; Selye 1973:694; Temple 2018:240). Given that tooth development begins in deciduous teeth from prenatal to about 12 months of age and from birth to approximately seven years of age or in permanent teeth, LEH holds a record of the developmental years of an individual during this childhood period (Goodman and Martin 2002; Hillson 2008).

Structural violence predicates the ability to negatively impact an individual's nutritional or metabolic health, as well as access to proper healthcare, maternal health, and sanitation (Klaus and Tam 2009:359). Because enamel is produced with regular time dependency it is possible for researchers to obtain not only a very specific timeframe of stressful episodes and their duration but also the duration of homeostasis in between (Goodman and Armelagos 1988:936; Guatelli-Steinberg and Reid 2008:237). We may be able

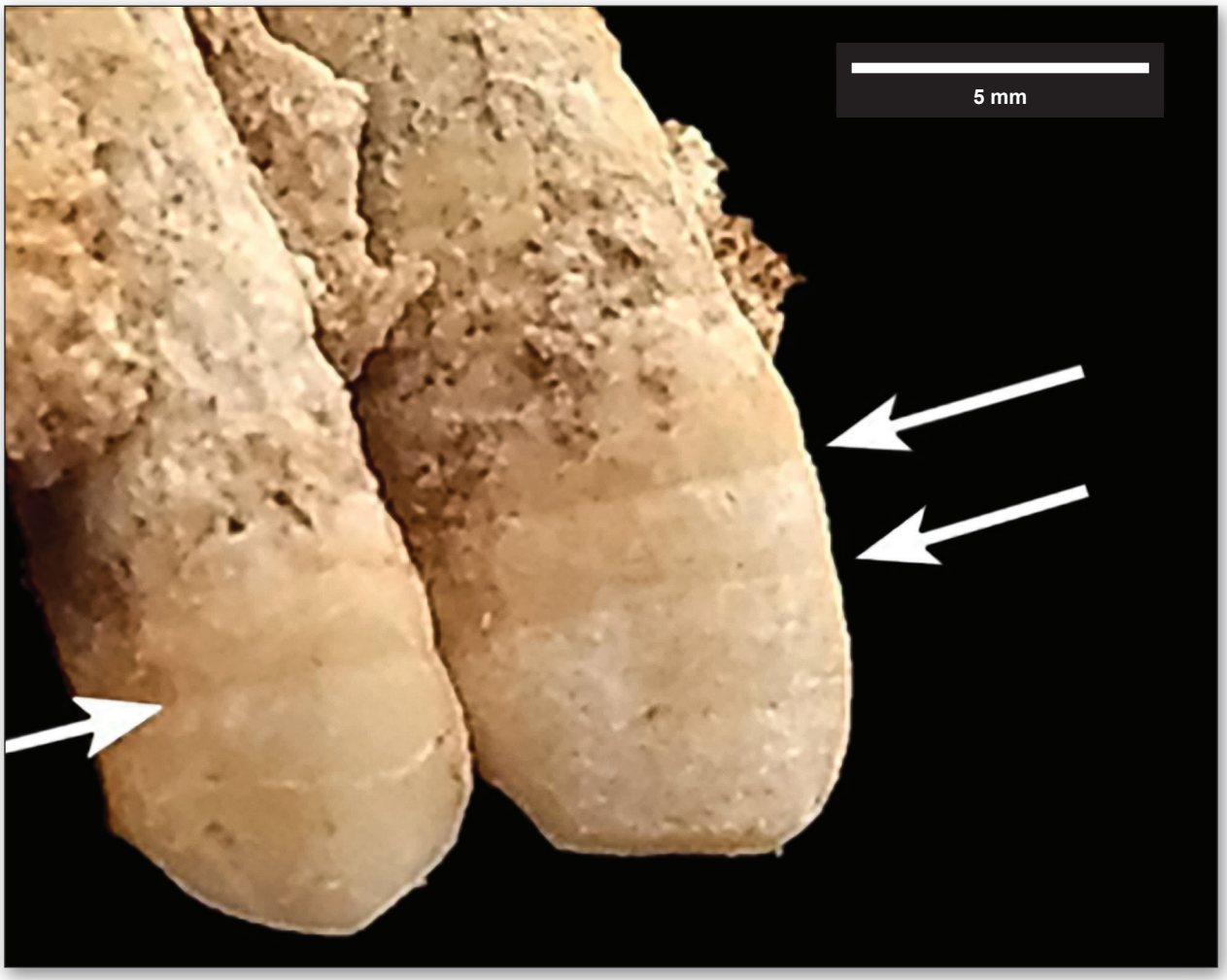

Figure 5.1. Example of LEH in the Mandible on Anterior Teeth from an Archaeological Sample taken from Trombley (2023).

to see prevalence rates and patterns among children, who in the case of structural violence often experienced nutritional deficiencies throughout their childhood (as noted by LEH) or other acute stressors (Soler and Beatrice 2018:122). It is important not to assume or to designate a specific etiology when an individual is noted with LEH, which is why it is important to utilize other forms of evidence along with LEH (Merrett et al. 2016:12).

Measurements for LEH on the individuals in this study were taken in various ways. First, it was noted if there was any LEH present macroscopically. This was done on anterior teeth as per methods provided by Cares and Oxenham (2018), Krenz-Neidbala and Kozlowski (2013), and Nakayama (2016). Table 5.2 describes how the number of lines on an anterior tooth surface were scored.

LEH distance can also be measured from the cement-enamel junction (CEJ) to the occlusal LEH present in order to estimate age of occurrence. However, for the purposes of this research, only presence or absence of LEH was noted.

Table 5.2. Noting LEH Scoring System.

LEH Score	Description
0	No LEH present
1	One line present
2	Two lines present
3	Three lines present
9	Unobservable

Cribra Orbitalia and Porotic Hyperostosis

Another stress indicator that is often observed as a product of structural violence is CO and PH. While these two skeletal indicators are located in different areas of the skull, they have commonly been grouped together given the suspected common etiology (Smith-Guzmán 2015:2). Both CO and PH appear as visible porosity on the skull occurs due to expansion of diploe (inner layer) within the crania as a response to marrow hypertrophy (Walker et al. 2009:109). It is important to note that CO and PH are not diseases themselves but rather the morphological expressions of various diseases (Schultz 2012). The skeletal lesions tend to look very porous, almost coral-like in appearance given dipole expansion and the thinning of the outer bone layer (Goodman and Martin 2002:27). In short, what occurs is that a person's body is missing the "ingredients" to maintain red blood cell homeostasis, these "ingredients" can include amino acids, iron, and vitamins such as B12 and B6 (Walker et al. 2009:111). In order to compensate for this, the body resorts to taking from other parts of the body which it deems less costly in order to bring red blood cell homeostasis, such as cranial vault marrow (Beatrice and Soler 2016:1165; Walker et al. 2009:111).

CO is typically observed on superior eye orbits of adults and is seen as a reflector of stress at younger age (approximately four years of age), compared to PH, which

develops during later years. In both CO and PH these lesions can be viewed as active or healed (Walker et al. 2009). This means when CO or PH is active there is little evidence of remodeling occurring versus when it is healed, where we do see evidence of remodeling occurring in these areas (Mangas-Carrasco and López-Costas 2021; O'Donnell et al. 2021; Walker et al. 2009). Typically, one would see active CO and PH in younger individuals and healed lesions in adults (O'Donnell et al. 2021). When there are active lesions there will obviously be more of an appearance of porosity with sharper "edges," whereas when we see healed porosities, these began to appear smoothed over or in the process of "disappearing." There is also that in-between stage where we have individuals actively healing; these are still be considered active (Mangas-Carrasco and López-Costas 2021).

These stressors were initially thought to be induced by poor childhood health and malnutrition caused by vitamin deficiency (Gowland 2015:536; Mangas-Carrasco and López-Costas 2021; Stuart-Macadam 1985; White et al. 2012:449). There actually was quite a debate about anemia, and what type of anemia caused these types of lesions (O'Donnell et al. 2020; Rivera and Lahr 2017; Stuart-Macadam 1989, 1992). One of the larger anemia debates is presented by Walker and colleagues (2009) who have insisted that iron deficiency anemia cannot aid the red blood cell production, which causes a marrow expansion causing CO and PH (O'Donnell et al. 2021; Walker et al. 2009). Arguments here ranged from iron-deficiency anemia, sickle cell anemia, to even discussion about leprosy, malaria, Vitamin C deficiency, metabolic disorders, and cancer as factors causing the expression of CO and PH in individuals (Mangas-Carrasco and López-Costas 2021; O'Donnell et al. 2020, 2021; Rivera and Lahr 2017; Walker et al. 2009). The photo (Figure 5.2) representing CO and PH is noted below and is also taken from the work conducted by Trombley (2023).

It has also been suggested that a poor diet, thought to lead to anemia, is typically the result of a disease (i.e., parasitic infection or virus), making poor diet and the anemic consequence a secondary cause leading to CO and PH. More recent work, however, has noted that exposure to bacteria, viruses, parasites, and toxins might be what ultimately causes the response of the body to produce CO and PH, while the nutritional deficiency side of things can exasperate the process (McFadden and Oxenham 2020). A study conducted by O'Donnell et al. (2020) also suggests that respiratory infections can also be a cause of CO and PH based on a study of a contemporary sample in New Mexico. The study found that active respiratory infections (pneumonia) at time of death correlate to those individuals who presented CO and PH (O'Donnell et al. 2020). With a respiratory infection, specifically pneumonia, an individual's ability to take oxygen is comprised given that the lungs tend to fill with puss and other fluid (O'Donnell et al. 2020). Mostly commonly we find that respiratory viruses are to blame for pneumonia, so here we see a further argument for a virus load being the factor leading to CO and PH (O'Donnell et al. 2020).

Figure 5.2. Example of PO and CO from Archaeological Sample taken from Trombley (2023).

Clearly, there is still quite a bit of discussion surrounding the etiology that leads to CO and PH (Walker et al. 2009). I would argue it certainly is important to see what factor or factors contribute to CO and PH, but it is just as important to understand the social structures in place that cause the biological situation that can potentially host these types of ailments. While CO and PH can be indicative of metabolic stress, parasites, viruses, infections and so forth, they can also be used as evidence of structural violence (Klaus 2012; Soler and Beatrice 2018; Walker et al. 2009). While we are arguably still discussing the etiology behind CO and PH, we can still see a common theme among all of them. This theme involves the inability to have access to proper healthcare, clean water, food, and sanitary conditions.

Scoring for CO and PH was adapted from Buikstra and Ubelaker (1994). A score was given for CO and PH separately. In both cases it was also noted which side(s), if applicable, were affected by CO and PH as well as general locations. Please see Table 5.3 for the scoring system.

Table 5.3. Noting Scoring System for CO and PH.

CO/PH Score	Description
0	No porosity
1	Barely discernible porosity
2	Porosity
9	Unobservable

It should be noted that within Buikstra and Ubelaker (1994) the scoring system ranges from 1–4; however, given that no individuals in this study had a score past 2 these other scores were excluded. Additionally, due to taphonomic factors many times it was not possible to observe CO or PH in an individual, in which case a score of 9 was given to indicate that CO/PH were unobservable. A score of 0–2 indicates that it was possible to see whether or not CO/PH was present. More specifically a score of 0 identifies that no CO/PH was present in the individual. A score of 1 indicates that there was some porosity present but appears more as pinpricks (Buikstra and Ubelaker 1994). A score of 2 indicates that porosity was clearly visible within the individual, however no other indicators are present besides this porosity (Buikstra and Ubelaker 1994). In addition to scoring the appearance of CO and PH it was also noted whether or not these were active, while they were not given a scoring system, they were noted. As previously noted, when there are active lesions there will obviously be more of an appearance of porosity with sharper "edges" if you will. Whereas when we see healed porosities, these began to appear smoothed over or in the process of "disappearing." However, in this process of being smoothed over we will still see these porosities though at a lesser extent (Mangas-Carrasco and López-Costas 2021). That being said a most of the individuals within the sample are adults, therefore healing was more likely to be noted.

Dental Caries and Other Dental Anomalies

Carious lesions (cavities) on teeth occur as part of a progressive demineralization of enamel, cementum, and dentine due to organic acids (Hillson 2008; White et al. 2012). While carious lesions can occur due to an intake of carbohydrates, they can also involve a bacterial disease process (Featherstone 2008). In addition, other factors such as saliva, sex hormones, genetics, social status and reproduction may also be etiologies contributing to carious lesions (Cucina et al. 2011; Goodson et al. 2022; Lukacs and Thompson 2008). Like with LEH, carious lesions can be prompted by stressful interruptions to nutrition, therefore, impacting proper growth and tooth maintenance (Hillson 2008). However, structural violence can also lead to these types of lesions and modifications given lack of access to dental healthcare, nutritious foods, or means for daily dental hygiene (Hillson 2008). Given the context of a population it is then possible to connect the lack of healthcare services and appropriate care to said carious lesions to structural violence (Cucina et al. 2011).

Given carious lesions multi-factorial nature, and the fact that dentition is among the most frequently recovered elements on the skeleton, special attention should be given to dental wear and carious lesions (Goodman and Martin 2002). Lack of basic hygiene due to inaccessibility can be used to support the idea that structural violence is at play. Given the multiple etiologies of carious lesions, and how these vary depending on the location of the caries, these lesions should be used with caution along with other lines of evidence (Cucina et al. 2011).

Another aspect of dentition that should be considered especially with UBCs are cosmetic dental restorations (Soler and Beatrice 2018). These restorations can occur to cover a cavity, for example silver lining, gold or silver tooth caps. The PCOME has also noted that some individuals have cosmetic work done in terms of silver or gold tooth addons. These addons do not serve a practical purpose but are more so for cosmetic reasons. These are important to note since they can be one line of evidence towards identification of an individual, so they are also noted here if present.

Dental caries was scored present or absent in an individual. If multiple carious lesions were present, then tooth number and location were noted. If dental fillings were present this was noted as well. Given the harsh desert environments of the border it was often difficult to see dentition, however it was noted when available. Typically, what occurs is that given the weather and animal scavenging teeth will often fall out of their sockets and small critters tend to take these and carry them with them. Likewise, dentition can sometimes crack due to the extreme heat changes (freezing at night and triple-digit temperatures during the day).

Rib Histology

Qualitative and quantitative microscopic features bone can be used to determine age-at-death and also possible pathological conditions endured during life (Cho and Stout 2011; Cho et al. 2006; Stewart et al. 2013; Stout and Crowder 2012; Stout and Gehlert 1979). Histological analysis of cortical bone quantifies the primary microstructures (osteons) within the bone which aids in the estimation of age at death (Stout and Crowder 2012). This age determination occurs is based on age-dependent changes in the bone's microstructure, specifically an increase in osteons with age, which is seen through bone remodeling activity (Stout and Crowder 2012; Streeter 2012). This bone remodeling activity is also impacted by various factors including age, sex, physical activity, ancestry, nutrition, and health status (Robling and Stout 1999; Streeter 2012). This makes it imperative for context to be present when identifying, researching, and estimating age in histological analysis. While many other studies have used long bones to conduct histological analysis, this research uses the rib as a means for age estimation. Ribs have been noted to be less subject to non-age-related remodeling as opposed to those bones that are impacted by weight such as the femur (Streeter 2012).

When possible, the third to eight rib midsection of the right rib was taken for histological analysis (Cho and Stout 2011, Goliath et al. 2016). The attempt was made to collect either the fifth or sixth right rib, if possible, for consistency (Cho and Stout 2011, Goliath et al. 2016). A study by Crowder and Rosella (2007) noted that there are no true histological variables that would impact age estimates among the third to eight ribs, which is why this selection varied. Additionally, the rib is easily accessible during autopsies, of which these were removed post-autopsies at PCOME (Cho et al. 2006). Approximately a one-to-two-inch fragment was taken using an electrical saw in order to obtain a diaphyseal cross-section (Cho and Stout 2011; Gocha et al. 2019). The fragment of midsection was transported from PCOME's office to the University of California, Berkeley. A total of 23 individuals were sampled.

The rib sample was cut into a smaller one-inch section by using an electrical saw (Cho 2012). After the rib section was cut it was placed in a Buehler's Epo-Thin® 2 two-part epoxy resin medium, following the protocol outlined by the manufacturer. The two-part system comprises a resin (Epo-Thin 2 Resin®) and a hardening agent (Epo-Thin 2 Hardener®), and then placed in a Buehler Cast N' Vac 1000 vacuum impregnation chamber (Beauchesne 2012; Trombley 2023). Samples were thin sectioned after 24 hours. The block was cut into 2–3-millimeter sections and mounted on petrographic slides) using a 2 Ton® Clear Epoxy solution (Devcon2). Slides were then processed on the Buehler PetroThin® grinding system, until the desired grinding is close to complete, with hand grinding at the end. Once section was prepared it was mounted using Permount and cover-slipped.

In this study, the aim of histological analysis was to determine an estimated age at death, as well as notice and describe any possible pathological conditions throughout the

individual's life course (Gocha et al. 2019). However, as samples were prepared for histological analysis it was noted that cortical morphological analysis (histomorphometric osteon count) was not possible due to microtaphonomic destruction. Moisture and fungus infiltration throughout the bone was noted and is discussed in the results/analysis chapter. Instead, the degree of taphonomy infiltration was noted with samples prepared displaying pronounced Wedl tunneling indicative of fungal intrusion (Trueman and Martil 2002).

Histological taphonomical changes, also noted as microscopic analysis of diagenesis, is just as troubling of an issue in this sample as it would be at the macro level, given that it inhibits potential data exploration, such as that of age and possible pathological conditions (Trombley 2023). Wedl tunneling presents a histological taphonomical process that impacts the bone in such a way that the actual microstructure of the bone is comprised (Trombley 2023). The fungus or bacteria itself is what causes this tunneling effect, though the etiology for Wedl is still being discussed and investigated (Végh et al. 2021). Once this tunneling occurs it is impossible to reverse the damage to the osteons, rendering them inaccurate for counting and thus producing an age estimate. Unfortunately, the degree of microscopic taphonomic destruction made histological age estimation impossible for all the samples in this study.

This brought into question how this microtaphonomic destruction may have occurred. All of individuals in this study were found deceased while trying to cross the US/Mexico border, specifically the Arizona border. This means they are traveling through hostile desert environments (Anderson and Spradley 2016; Beatrice et al. 2021). Taphonomically, this means that these individuals will be exposed to high temperatures as well as animal scavenging. Individuals can be found anywhere from one day post-mortem to 10 years post-mortem (Anderson and Spradley 2016; Beatrice et al. 2021). Even though it is possible that these remains are exposed to water due to rain, fog, local streams or rivers, it is still highly likely that this water would dissipate given the high desert temperatures. In short, they are not very likely to be exposed to a moist environment (Anderson and Spradley 2016; Goren et al. 2021). The histological taphonomical changes noted above, specifically Wedl tunneling, require there to be some type of moisture present for the fungus or bacteria to thrive (Végh et al. 2021).

While at first glance this might be perceived as a loss of data, is actually noted as a potential contributor, most recently noted by Trombley (2023). The reason being that even though the original histological data is not possible to obtain due to taphonomical microscopic changes, it allows there to be a conversation into the, "why" and "how" these events took place. It allows us to see home in on this issue of structural violence and how it can be perceived not only in life and in the process of death, but also in how these bodies are treated post-mortem. These individuals need to have been exposed to some type of moisture in order for this condition to arise, which then leads us to investigate and question the methods in which these individuals are stored prior and after analysis. Here

we can begin to incorporate the historical structural violence that impacts these individuals even at a histological level after death (Goren et al. 2021). This microbial diagenesis to the bone is produced by the external environment, an environment that has been propagated by the very structure that led many of these individuals to their deaths. The following section provides a wider overview on the issues surrounding taphonomical changes at the macro level.

Macroscopic Taphonomy

Taphonomy, in its most general definition, is what occurs to organic matter (i.e., bone) after death; this can be shown at an intrinsic and extrinsic level (Jackes 2011; Manifold 2015). How a bone is impacted by taphonomy can ultimately influence and bias the representation of the skeletal remains as noted in Soler and Beatrice (2018), making interpretation difficult (Jackes 2011). These interpretations can impact how we look at the bone at the macroscopic level and microscopic level (see above for Wedl tunneling) but can also provide insight into post-mortem processes. Through the study of the taphonomic process, as researchers, we can begin to understand the cumulative process including context and condition that a skeletal assemblage or remains have encountered (Stodder 2008).

As analysis began evidence of taphonomic alteration was noted such as sun bleaching, animal scavenging, rodent gnawing. That severely impacted the ability to properly analyze the human remains. While the consideration of taphonomical processes on skeletal remains is not unusual, the extent to which an individual is impacted by it can depend on various factors, all of which are not necessarily caused by the environment (Bartelink 2017). In fact, taphonomy can also include post-excavation and how an individual is stored prior to analysis (Gocha et al. 2018).

Beatrice et al. (2021) have spoken about this very issue in their own work that also involved skeletal analysis of UBC at PCOME. In their research throughout the years, they noted that certain markers of stress were not observable given significant sun bleaching that resulted from extended exposure in the desert, where many of these individuals were found (Soler and Beatrice 2018). In addition, remains that were able to be collected were often incomplete, which occurred for several reasons including the natural erosion process, animal scavenging, and purposeful removal (Soler and Beatrice 2018). This not only prohibits the ability to look at stress markers, but it also makes it not possible to do a basic biological profile for these individuals (i.e., age, sex, stature). Whether it is intentional or unintentional these post-mortem processes obliterate not only skeletal indicators of stress but can also erase the possibility for this individual to reclaim their personhood even after death (Beatrice et al. 2021; Knudson and Stojanowski 2008; Wagner 2008).

During the data collection portion of this project, where initial skeletal analysis was conducted, there were various points in time where certain markers or indicators of sex or

age, for example, were unobservable (Jackes 2011; Manifold 2015). While this is not uncommon within a forensic assemblage, it can certainly affect the development of a complete biological profile. This led to several gaps in data collection, however, it can be argued that this very issue can begin to deepen the understanding of the violence and carelessness that these individuals experience even after death. The manner in which these individuals were processed and stored will be further discussed in later chapters. Specific to this discussion is how individuals were stored given PCOME's financial, space, and time capacities. Given these factors the skeletal remains housed at this facility were compromised at the microscopic level, which inhibited histological analysis, not to mention the large macroscopic analysis that took place within PCOME (i.e., demographic profile).

Ancestry and its Noted Exclusion

The use of ancestry has a deeply problematic history not just in anthropology but also how it is viewed socially and in turn interpreted biologically. Below is a more thorough explanation on why ancestry will be excluded in this research, while also explaining the different methodologies that continue to be used in order to estimate this "trait." The reason why this is explained is because it is a method employed by forensic anthropologists within PCOME which is where skeletal data was primarily derived from.

Ancestry can be very complicated, however standardized methods were utilized and considered within PCOME using adaptions made by Hefner (2009) and Hefner and Linde (2018). Hefner and Linde apply macromorphoscopic cranial traits in order to access ancestry which include looking at: anterior nasal spine, inferior nasal aperture, interorbital breadth, malar tubercle, nasal aperture width, nasal bone contour, nasal overgrowth, postbregmatic depression, supranasal suture, transverse palatine suture, and zygomaticomaxillary suture (Hefner 2009; Hefner and Linde 2018). Hefner (2009) further provides illustrations on the different types of expressions these features can have by noting them numerically. For example, using the inferior nasal aperture, Hefner provides three different "scores" or categories for which this can apply (Hefner 2009).

After traits are collected and put into a numerical category, they are then put into a software system called the Macromorphoscopic Databank (MaMD for short; Hefner and Linde 2018). The shortened version of this databank is that it allows users to input their macromorphoscopic observations, into the database, and then produces an estimated ancestry based on stored populations in the system. The database then cross analyzes this information with the 7,500+ individuals in the database. It does this as a population comparison point in order to get accurate results on an individual's ancestry based on previous analysis. The databank houses an estimated 20 populations from around the world, however this does not mean that it is absolute. In fact, there are many critiques and comments on the types of populations being used to make up this comparative sample (Bethard and DiGangi 2020; DiGangi and Bethard 2021; Stull et al. 2020). The issue noted

here is that in a forensic context, ancestry does prove to be useful, however in other forms of analysis say bioarchaeology, it is not very helpful (Bethard and DiGangi 2020; DiGangi and Bethard 2021; Stull et al. 2020). The debate then becomes whether it should be used just within one context (forensic anthropology) and not in another (bioarchaeology) OR a third option if we should get rid of it altogether. As of this writing there has still not been a conclusive understanding of how it is we want to operate ancestry within this field of study.

Nevertheless, it is used here in addition to the FORDISC 3.1 (Jantz and Ousley 2005) data system as well. FORDISC allows for several iterations of a discriminant function analysis to select various and the progressive exclusion of groups (Jantz and Ousley 2005). This allows you to note who the "higher probability" of ancestry is based on THEIR comparative population which is only based on five groups: Native American, Black, Hispanic, Japanese, and White females (Jantz and Ousley 2005). Given this incredibly small comparative sample one can see where using Hefner's (2009) methods might be more helpful.

With this methodology in mind, it is also important here to address the reasons why I will not be using Ancestry in my own skeletal analysis. PCOME Ancestry data in regard to this skeletal sample provides problematic data points given not only its variation but the language use. Some of the categories used include Admixed Native American, Admixed Native American and African, and Hispanic/Latino, just to name a few. In reference to Admixed Native American, this tends to be used to identify people from Latin American with indigenous roots, so it should not be conflated or confused with how we use the term Native American within the US. Those noted as "Unable to Assess" had some, but not enough skeletal features in order to properly assess ancestry. This is not uncommon given the state that many of the individuals noted as UBCs are analyzed. Given the state of many remains, at times the best way to note or approach ancestry was to use descriptive language. This is where we note terminology in reference to hair, admixture, Hispanic/Latino and so forth. Plemons and Hefner (2016) for example note macromorphic traits that lead to certain ancestry categories these include but are not limited to: American white, American black, American Indian, Hispanic, and Asian.

In the identification process things like sex, age, and ancestry are important to assess however ancestry can be problematic for various reasons. How individuals are categorized and labeled will be noted in the following chapter. While the previous noted methodology in this dissertation notes the different ways in which ancestry can be estimated, again this does not always apply to the present sample given its often fragmentary nature. It is then nearly impossible to apply these categories, making once again descriptive language the best option.

As noted in above the discussion of ancestry and its academic value is still debated (Bethard and DiGangi 2020; DiGangi and Bethard 2021; Stull et al. 2020). As a researcher who is also a person of color, and more specifically a daughter of someone who crossed

the US/Mexico border, I am able to acknowledge the importance of the ancestry work being conducted, however I am also able to acknowledge how problematic it can be. The inherent racist and colonial underpinnings associated with ancestry do not, for me, seem beneficial to this research or the questions that I am asking (Sauer et al. 2016). For forensic purposes I can understand the use and need of ancestry estimation. Even in this research the primary use of ancestry is primarily to note if the person found is a migrant versus a US Citizen that may have met their demise in the desert. More often than not if you are found in the desert, you are likely to be a migrant. However, as a means to verify this, ancestry is estimated. Again, this is understood and acknowledged but for the purposes of this research all I need to know is that they were migrants, which the categories previously noted get to and that is all I need. I think this is certainly a discussion worth having, but not one I would like to include when discussing the skeletal data collected in PCOME. The last chapter in this dissertation will revisit the issue of ancestry, but again it will not be included in my skeletal analysis.

DNA Analysis of PCOME Samples

An area that has often been discussed in identifying individuals that are found deceased on the border is DNA analysis. The question is often asked as to why not just conduct DNA analysis to get more accurate information. Here I want to clarify why this is not always possible or feasible. The first thing is that in order to obtain DNA specific samples are required such as teeth, hair, blood, or bone (Baker 2014). These viable tissues are not always available in PCOME skeletal samples. The second issue is financial, as the agency, in this case PCOME, typically does not have enough funds to send all samples for DNA analysis. The PCOME is a fully functioning Medical Examiner's office, meaning they have more cases than just those of UBCs (PCOME 2022). This means that any funding for DNA analysis needs to consider the other hundreds of individuals that go through the doors of PCOME, not just UBCs. This also leads to issues of preference, which individuals get priority for DNA analysis? This is tricky and often fought with various political implications. The third thing to consider is time, how much time is this going to take, and is this time frame logistically reasonable (i.e., do we have the time to wait and interpret results).

Lastly, and perhaps most important, is that DNA doesn't "work" unless you have a comparative sample (Anderson 2008; Huges et al. 2017). We need to have familial samples to compare DNA—for a positive identification, we need something to work with. DNA is not just used for identification: as noted, it can also be helpful in determination of age, sex, and ancestry (Huges et al. 2017; Reineke 2022). However, the main purpose here it to positively identify these individuals and send them home. That is the ultimate goal, but we cannot do that without a sample from family members, which is often difficult to do given that these family members do not live in the US, and if they

do live in the US, they are afraid of giving their DNA out of fear that it will be used to harm them (Reineke 2022), which, to be fair, is a very legitimate fear for them to have. So, while at its surface DNA may seem like the end all, be all, it is actually not as straightforward as it may seem, especially with this population (Reineke 2022).

In personally volunteering with the Colibrí Center, I was able to see the initial pushes for the accessibility, education, and overall importance of this type of analysis. Colibrí understand how vital DNA comparative samples are, but also how difficult they are to come by and the fear many families have in engaging with this overall. At the beginning of the process, I was able to observe all the nuances and preparatory work to engage in this work. One of the biggest hurdles that Colibrí had, especially if they were going to work with other agencies besides PCOME, was in the verification process. This means that they needed to engage in this process in a very streamlined manner that also included the oversight of some type of larger agency, be this law enforcement, a judge, or a lawyer. This was to ensure that the samples were being taken accurately according to protocols and ethically. However, given that we are dealing with a vulnerable population the idea of having someone from law enforcement present, tended to scare away a lot of potential individuals who could participate in this program. Colibrí has worked tirelessly throughout the years to ensure that this process is actually accessible to the families of the missing, since without them we are missing half of the DNA puzzle. Currently, Colibrí offers a mail kit program, which offers family members of the missing in the US and in other countries the ability to directly send samples to Colibrí through the mail (Colibrí Center 2024). These samples are then sent to the same DNA laboratory that PCOME uses for their own DNA analysis. As a reminder, UBCs forensic anthropologist at PCOME always takes a skeletal sample of an individual for DNA analysis. It is through PCOME that genetic matches are confirmed and then reported back to Colibrí, who then informs family members (Colibrí Center 2024).

ETHNOGRAPHY

The ethnographic component of this research is conducted in two ways. First, is the use of anonymized data given from the Colibrí Center. This data gives information on individuals whose families have reported them missing after they attempted to cross the US/Mexico border. The data provides information on an individual's place of origin, travel routes, age, sex, location where they were last seen, possible destination, and the current status of their case. Additionally, PCOME also provided information on location where remains were found, estimated age, and items found with the individual. These quantitative data was used in conjunction within person interviews that took place throughout the California Central Valley.

The second way in which ethnographic research was collected was by in person interviews. The approach taken for participants was similar to that used by Alonso et al.

(2019), here individuals that can be potential interviewees are approached given a researcher's familiarity with them and from here using a snowball research strategy (essentially getting further informants via word of mouth). This is important because the topics being discussed are very sensitive, so in going through word of mouth, "vets" the researcher as someone trustworthy that does not mean them or their community any harm. Many of these individuals are afraid of authority, justifiably so, this approach allows there to be a sense of familiarity with the researcher and interviewee. Needless to say, the power differential here cannot be avoided but mitigations for this are attempted. The state of California in general has long had a plethora of migrants working in various job sectors throughout the years including farm labor, restaurants, and construction. As such, the California Central Valley was specifically targeted given its extensive history of migrants that has been at times understudied or overlooked (Hernandez 2018).

This is also the location where I personally hold ties to the migrant community. Given that I have my own history of working at a field worker, I knew where many of these types of individuals worked, ate, and passed the time. I targeted these specific locations and approached everyone in Spanish and explained who I was, where I was from, where I go to school, and why I am asking these types of questions. Even before an interview could even be attempted, it was vital that the individuals I approached knew that I was not associated with any type of law enforcement agency, and that to a certain extent, I was one of them. While I have not crossed the border myself, my family has, and I too have had to participate in the harsh conditions of farm labor in the California heat and cold. This allowed for a commonality between us for there to even be a conversation about a potential interview.

While skeletal analysis is vital to this research, it is also important to allow those who experience structural violence to speak on their own accord (Alonso et al. 2019). Past forensic anthropological research has been strong in understanding and extrapolating on skeletal evidence and what this means at a political and social level (Anderson 2008; Anderson and Spradley 2016; Beatrice and Soler 2016; Beatrice et al. 2021; Doretti et al. 2017; Soler and Beatrice 2018). However, what has been often missing is allowing these very individuals themselves that migrate to speak on their behalf and through them understand their experiences rather than attempting to interpret it through skeletal material alone. The ethnographic portion of this study thus takes into account subject matter that can relate to what we see in the skeleton and also that which we cannot (Alonso et al. 2019). So, for example, the skeletal assemblage cannot tell why someone decided to leave, the stops they made along the way, the interactions they had with others and so forth. This data has long been missing from the research concerning undocumented border crossers, and as such is a critical component to this specific research.

Approval for the ethnographic component of the study was made with the UC Berkeley Committee for Protection of Human Subjects (CPHS) and Office for Protection

of Human Subjects (OPHS). Given the sensitivity and risk that may be encountered by potential interviewees during the ethnographic portion of this study, a full board review was required and approved. Information collected by PCOME and Colibrí were acquired under the umbrella of their own established ethical requirements. The full survey questions, in both English and Spanish will be noted in Appendix A.

Per IRB protocol all individuals asked to participate in the study were screened prior to the interview taking place. Individuals were approached while conducting farm labor, or on their breaks, or while having lunch. Once those connections had been established word of mouth was used to continue obtaining potential interviewees. In order to be consistent with data taken from PCOME, individuals for the ethnographic portion were asked if they had crossed within the last 20 years. The basic criteria were they needed to have crossed the border within the last 20 years and be over the age of 18 during the time of the interview. Given the sensitivity of the subject matter, part of the approval process for this research hinged on the anonymity of these individuals. Therefore, individuals were never asked for their name and if photos were taken every precaution was taken to blur out any identifier. For example, if a photo was taken of them while working their eyes were obscured as well as any other identifier (i.e., a name tag, name of a city, or name of their employer). To further protect anonymity, there was no written consent established, instead the interviewees consented verbally, but were told that they could excuse themselves from the study at any point in time. The IRB board approved all the interview questions in Spanish and in English, along with their subsequent follow up questions. Questions asked during the interview are noted in the appendix.

Prior to the interview beginning I explained, if I had not already, who I was my own connection to this research, who I was affiliated with and the overall scope of my project. Once they were told this information they were able to view the questions ahead of time and decide if they wanted to still participate. Interviews lasted approximately one hour, and participants were compensated for their time with a $50 Walmart gift card after the interview took place. If an interviewee decided to stop the interview due to distress, they were allowed to do so and still receive compensation.

Questions asked during these interviews included asking where they were originally from, and what made them decide to leave their country of origin. This type of open question allowed for the interviewee to respond using their own narrative and to add information that they felt was pertinent to the reason(s) they left. If participants seemed unsure of how to answer, follow-up questions were asked, such as, “Does your family still live there? Or have they all left the area?”. These prompts will aid in furthering interview discussion. Questions progressed from where they were born to how life was growing up. Ultimately, the question is asked as to why they decided to leave, and more specifically what factors led to that decision making process. The main portion of the interview focuses on these details as well as the journey and attempt(s) at crossing. The interview ends with questions regarding life

in the US: "How long have you been here?" and "Do you enjoy being here or would you rather be home?". Arguably one of the hardest questions asked towards the end was, "Was it worth it?". The chapters that follow further delve into this hard question.

Individuals were audio recorded using an audio recorder only when they consented to do so. If they did not consent to audio recording the researcher asked if she could take notes during the interview process. For those that were audio recorded, per IRB protocol the audio recording needed to be transcribed and the audio needed to be deleted after a year. Any audio, notes, photos, or transcriptions were also required to be stored on an encrypted external hard drive.

Given the locations in which many of these individuals worked, all interviews were in semi-public places (i.e., fields where they worked or farmer's markets). It seemed most interviewees were more comfortable in this open-air environment rather than meeting somewhere privately indoors.

MATERIALITY ("THINGS THEY CARRIED")

An additional component to my research is to understand the sentiment and power that materiality brings to these individuals. Many, if not all of the individuals crossing the US/Mexico border, carry with them religious, sentimental, nutritional, or protective items to name a few. These "things they carried" were interpreted as artifacts in the post-mortem context, and in this sense, they were used to contextualize the individual who carried such items (Reineke 2013). Each of these items may be indicators of the life the individuals are leaving behind, in combination with the one they are hoping to achieve in the US (Camp 2011, 2013) The bigger picture here is that this crossing is long and dangerous, so whatever they decide to take with them was hypothesized to have some type of value or importance, be it for survival or emotional and physical support (De León 2015; Reineke 2013). Information on the material artifacts found with deceased individuals was noted from reports given by PCOME as well as information provided by interviews.

Through the use of materiality or "artifacts" this research aims to understand how the embodied experience of immigrants can shed light on the structured violence influencing their decisions to leave their home country (Hernandez 2018). This portion of the research hopes to grasp not only the reasoning behind immigrating, but also the relationship between a sense of belonging, citizenship, landscape, and self-identification.

In looking at materiality this research relied heavily on the frameworks provided by Camp (2013) and De León (2015). For her part, Camp (2013) uses materiality to get at the meaning of things such as citizenship, ethnicity and belonging within archaeology with examples of individuals from Mexican and Japanese ancestry. Camp views these "artifacts" or objects not just through their utilitarian use but also as a symbol of mobility, freedom, citizenship, and belonging (Camp 2013). For example, an individual may carry

with them their identification card from their home country. This identification card has a straightforward use, identification, however, with individuals crossing the border, the significance of this identification card may have more layers. For example, they may carry it as a reminder of their home, to use for help if they are injured, as an actual tool, or even to have a sense of belonging and reminder of who they are.

Needless to say, the interpretations here can be many, but the point being that an object can tell us a lot about a person's identity and sense of belonging (Hernandez 2018). Throughout time this same object can have an array of meanings, which is something that Camp points out in her own work and is implemented within this present research. Jason De León (2015) has been a prominent archaeologist in the discussion of material culture and belonging, as it pertains to individuals attempting to cross the US/Mexico border. In De León's work we see the construction of necro violence and how this necro violence can either be seen as beneficial or destructive depending on your citizenship status (De León 2015). De León's work is pivotal in understanding the underlying violence experienced in hopes of belonging. De León focuses more so on the violence that can be tied to materiality throughout a treacherous landscape as compared to Camp who focuses on material culture through consumerism and belonging (Camp 2013; De León 2015).

It may seem at first glance that Camp or De León allow for the material objects left behind to tell the story of immigrant groups, but in fact it is the groups themselves which give objects the variation of meanings. These meanings need not only signify the need for citizenship, but they can also indicate defiance or the metamorphism between the new culture in which they want to engage as well as that which they have left behind (Burmeister 2000; Mullins 2011). Mullins (2011), albeit not directly, does note that as scholars we need to be careful of the type of interpretations we draw, given that material culture and its meaning is not necessarily uniform across cultures and peoples (Burmeister 2000). Negotiating these meanings with historical context and awareness of the cultures interacting in terms of space and time allows there to be a space where the agency of the individual is valued over that of the material left behind (Mullins 2011).

Needless to say, how an (bio)archaeologist interprets the meaning of material culture is a result of various things, be it their theoretical backgrounds, methodological backgrounds, or even personal backgrounds (Bauer 2002). This is especially important to recognize in this present research given the on-going political debates and ostracization of these groups. Along with the use of PCOME FAR reports to identify material artifacts, what was carried was also investigated through the ethnographic interview questions as noted in the Appendix A. Appendix B contains the full list of categories for "things they carried." Instead of listing actual items, such as a water bottle, backpack, cellphone, etc., it was decided to instead use more generalized categories.

All the individuals in this study and noted by PCOME are so different and carry with them such a plethora of items, that it seemed the overarching idea of what it is they carried

would be lost in providing such a nuanced list. Instead, more general categories were noted: hygiene, jewelry, consumables, documents, personal items, communication device, clothing, religious items, currency, weapons, and traveling bag. These categories fit all the varying items that these individuals carried and allows for a more productive discussion to take place regarding why these items were carried and why they were so important.

However, it should also be noted that lack of items was also noted and just as important. Many of the individuals interviewed noted that traffickers (also known as *coyote*s or *polleros*) actually took away from them any items that they were carrying, so they traveled with nothing. The implications of this are noted in the following chapters, but important to note here, because this is something that had not previously been accounted for or emphasized.

LOCATIONAL DATA

Locality plays an important, but at times dangerous role, in this research. It is certainly important to know where these individuals are from, and the routes and corridors taken when crossing. However, in knowing the routes and corridors of crossing, there is most certainly a danger of these areas being exposed to law enforcement. This has actually been quite a critique in UBC research (Soler and Beatrice 2018). This train of thought leads to an entire issue with ethical considerations not only in the present study but in the field of Anthropology as a whole (Baraybar et al. 2020; González-Ruibal 2018).

Some researchers have been pretty blatant about the dangers associated with exposing and speaking about crossing corridors, locations where UBCs go to rest, or locations where remains or things these individuals carried were left behind (Gocha et al. 2018; Spener 2009; Vogt 2013). This is certainly an important conversation that is being discussed in UBC research today. Given that this present research wants to look at how structural violence impacts individuals and leads them to cross the US/Mexico border, detailed conversations gained from the ethnographic interviews was not included in detail in this study. The exact location where they cross was not necessary in order to understand the larger theme of structural violence and how it impacts individuals throughout their life course.

However, a general location of where they crossed and where they lived afterwards was noted in the interview questionnaire. The interviewees could refuse to answer the question if they so choose to do so. However, knowing where they grew up was of importance. This provides a framework for the social, cultural, political, and economic factors that may have been at play in addition to their own personal situations. Likewise, to prevent any potential identification the names and locations of individuals during the interview process were never correlated. Individuals were only asked a vague description

of the location in which they crossed. For example, they could say Sonoyita or Tijuana, but they were not asked to get any more specific.

Information on locality was acquired through ethnographic interview questions (see Appendix), Colibrí Center anonymized data, and PCOME. During ethnographic interviews individuals were asked questions about locality in terms of where they were originally from, where they traveled, and where they crossed. The anonymized data from Colibrí reports on where the missing individual that is being reported is from, and the location they were last seen alive or noted by someone else as last being seen alive. Information provided by PCOME includes location where the deceased individuals were found.

DATA ANALYSIS

Skeletal data analysis was noted using prevalence rates of presence or absence given several skeletal features. For example, whether individual's have LEH, CO, or PH. The skeletal data was also quantified into categories for example, age, sex, and ancestry. Given the smaller sample size it was not possible to conduct detailed statistical analysis. Therefore, prevalence rates as well as categorial information were used in reviewing this type of data. In addition, there were cross-comparisons made with skeletal data, meaning individuals who exhibited a stress marker(s) were identified and noted overall as well as among their peers if any commonalities or trends existed. This was done in order to note potential events that may correlate with contexts of structural violence that may have produced these types of trends in stressors.

Ethnographic data is qualitative in nature, however in order to quantify it, it was placed in categories depending on question responses. So, for example categories were made for location where an individual was born, if they passed using a trafficker, if they crossed more than once and so forth (see appendix). These categories help place individual experiences at a wider scale in order to see if there are any overarching trends, and how these trends may have come to be. For instance, are all people that crossed with traffickers from a certain region or did they cross in a certain location. Does being from a certain region or crossing in a certain city indicate you will be more likely to cross with a trafficker? What are the repercussions of this?

The ethnographic portion also includes anonymized data from Colibrí which means categorically data could also be applied here to determine basic demographic data. Data from Colibrí and interviews can then be used in unison to produce a more holistic narrative of the migrant experience through time. The ethnographic portion (i.e., direct quotes from interviewees) also allows for the individuals to speak on their own behalf and be representative of the data found. This data also stretches back 20 years which aids as a comparison point to the data provided by PCOME.

In looking at material artifacts materiality, this is a purely categorical data set. However, even though it is categorical it is vital in that it has commonly been used as a way to form a narrative around the migrant experience. This narrative is often told by the items alone; however, this study allows us not only to discuss these items but allow for the carriers of these items to discuss their importance and value. While the interviewees cannot speak for the items noted by PCOME, they can shed light on the importance of certain objects given the social, environmental, and economical environment related to crossing the US/Mexico border.

Locational data is used with extreme caution given that providing certain types of locations, such as crossing corridors, or locations where migrants currently live, can actually be quite dangerous. This can lead to deportation or having border patrol stake out certain trekking corridors. This research is not meant as a means to aid in the capture or policing of undocumented border crossers, but rather to delve into their experience in a safe manner. A manner that is also conducive to providing useful data for humanitarian efforts. Therefore, locations will be categorized in a generalized format, rather than giving specific locations. For example, we can note cities and states in categories as well as on a map, but not actual coordinates of where these individuals are or any other distinguishing features that might aid someone in locating interviewees, or anyone associated with them. The fear of retribution was very real during these interviews, so it is with this in mind that location is noted, and only noted as it pertains in a useful manner to this research and those involved in it.

The following chapters delve deeper into the results and analysis of the skeletal, ethnographic, material, and locational portions of this research. While the four lines of evidence may seem quite distinct, it will begin to become apparent that each category depends on the other in order to truly delve into the various complexity's associations with the lives of those who decide to cross the US/Mexico border. Contrary to popular belief and news headlines, the decision to cross "illegally" is actually a convoluted and painful one. It involves years of constant economic, social, and political pressures that begin to tear at individuals at an emotional and physical level as well. In viewing both the physical and emotional aspects of this process, it becomes more apparent that the issues we are dealing with here go far deeper than simply deciding to cross to make income.

CHAPTER 6 SKELETAL RESULTS

INTRODUCTION

Skeletal data for this research and subsequent results noted in this research were obtained from PCOME's office, my own empirical data collection, and comparison of work conducted by Beatrice et al. (2021). During the summer of 2019, a total of 63 individuals were examined to collect skeletal data. Of these, 23 had crania samples and 23 rib samples were taken. In addition, 17 individuals were viewed but no skeletal stress markers were able to be noted upon examination, given the state of the remains due to taphonomic alternation. The sample size is summarized in Table 6.1. Demographic information for these individuals included information on sex, age range, CO, PH, LEH, carious lesions, dental modifications, and pre-mortem fractures.

Table 6.1. Overview of Skeletal Data Collected at PCOME.

SAMPLE	NO. OF INDIVIDUALS
Crania	23
Rib (samples)	23
Individuals with no crania present	17
Total	**63**

SEX ESTIMATION

Of the 63 individuals analyzed, five were determined to be female, 44 male, and 14 undetermined. Given methodological considerations on sexing some of the skeletal remains were incomplete or were damaged post-mortem such that it was not possible to accurately estimate biological sex. As I conducted biological profiles from the remains it became clear that taphonomic processes would impact the availability of data which is something also noted by Beatrice et al. (2021). Overall, 10 percent of the individuals in the sample were estimated to be female, and 90 percent of those individuals where sex could be estimated were estimated to be male (Figure 6.1).

AGE ESTIMATION

Age estimation is more complicated than sex estimation. The PCOME age estimation ranges varied for several reasons. These include incomplete remains, different methods preferred given the forensic expert based on skeletal availability due to taphonomic processes. Because of this, most of the age estimates given were large ranges that encapsulate many possible ages given the incomplete skeletal material available. Due

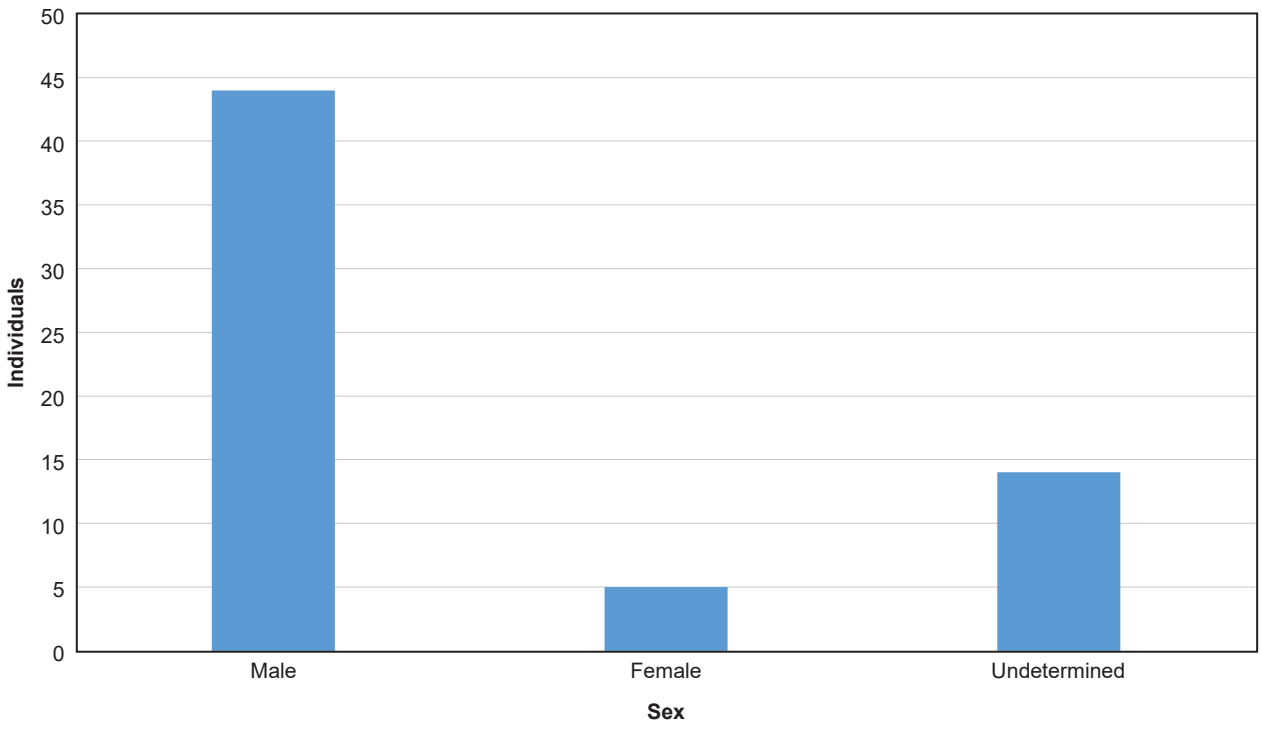

Figure 6.1. Representing Estimated Sex in Sample.

to this complexity I chose to instead create my own age categories based on information from PCOME and data I collected. These include: <20, 20–50, and 50+ (Figure 6.2). It should be noted that an additional category of "Unknown" was also applied, given that some individuals had so little skeletal data available that an age determination was nearly impossible to determine. While these age ranges may span quite a bit of time, this accounts for a more realistic and accurate estimation of age. Of those individuals where age estimation was possible, the breakdown of estimated ages in the sample is seen in Figure 6.3.

CRIBRA ORBITALIA AND POROTIC HYPEROSTOSIS

Within the sample, of those where it was possible to observe CO, 21 percent of individuals were noted to have CO, while 79 percent individuals did not show the presence of CO. The sample had a total of 20 (32% of sample) individuals noted as unobservable. For those 20 individuals where CO could not be observed, this indicated superior cranial orbits were not present for analysis, or the taphonomic damage were such that an accurate observation could not be made (Figure 6.4).

For the individuals who did present signs of CO, most individuals had a presence score of 1 (barely discernible) with a single individual noting a score of 2 (porosity only). The implications of these scores were also noted in comparison to those by Beatrice et al. (2021). Of those individuals who did show CO, all were noted as male, with no females showing indication of CO (Figure 6.5). Within this group, an estimated 67 percent of individuals who did show signs of CO were in the 20–50 age category (Figure 6.6).

Of the 45 individuals that could be analyzed for PH, 58 percent individuals were noted to have some degree of PH while 42 percent did not show signs of PH. Within the sample a total of 18 individuals (29% of entire sample) were not able to be observed for PH. As with CO, when noted as unobservable, this indicated that the individual did not have a cranium to conduct proper analysis, or taphonomic damage prevented the ability to perform an observation (Figure 6.7).

For those individuals that did show signs of PH, 21 were estimated to be male and two were estimated to be female, and the remaining two individuals could not be estimated for sex (Figure 6.8). On average, individuals who displayed a majority of PH in this sample were in the age ranges of 20–50 years (Figure 6.9).

Overall, individuals tended to display higher presence of PH than CO, which may be due to post-mortem processes and the ability for the crania to withstand longer periods of time in the elements versus the supraorbital margin. However, overall preservation was poor in all the individuals in the sample with some having portions of the cranial or orbital area completely missing, having occurred post-mortem. For those individuals that did present PH all represented a score of 1 (barely discernible).

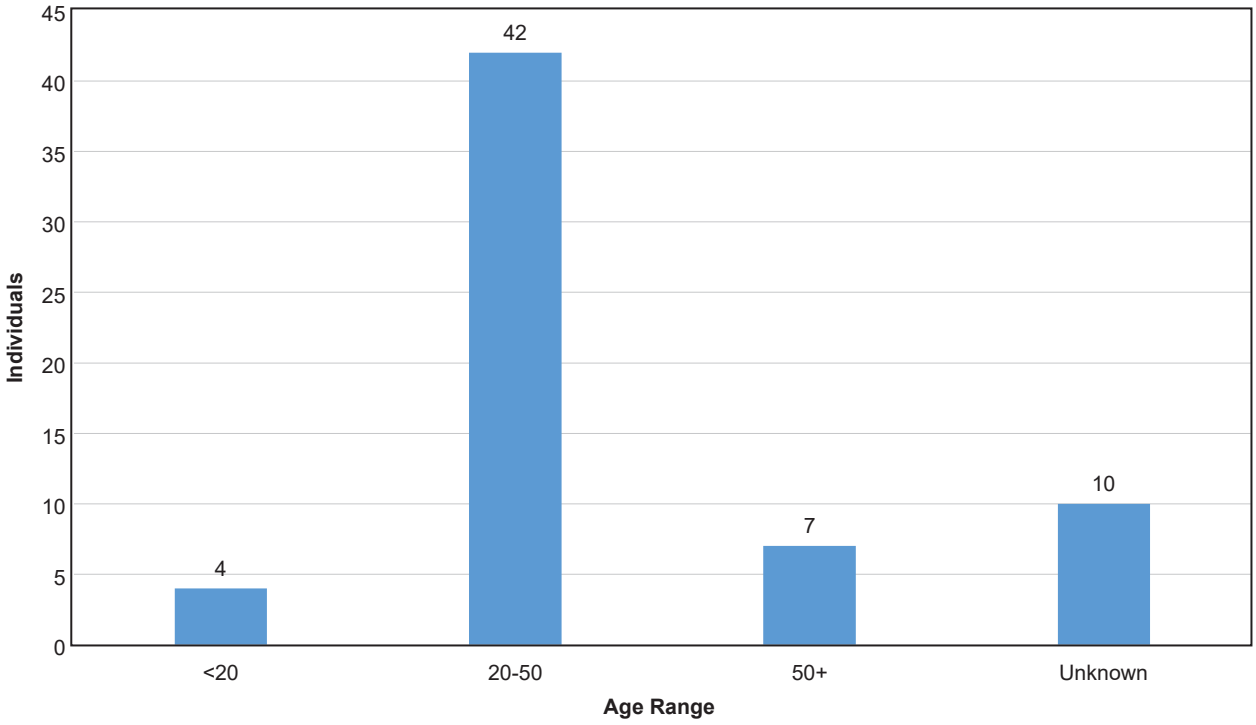

Figure 6.2. Representing Estimated Age Ranges in Sample.

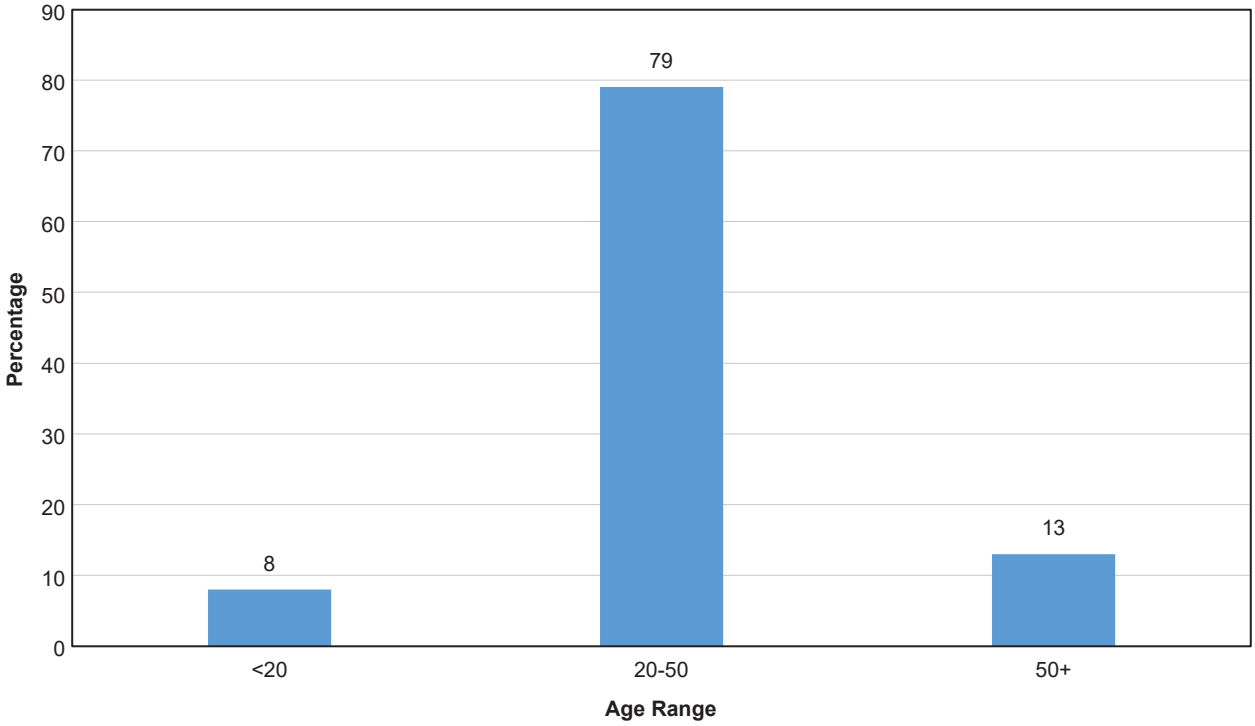

Figure 6.3. Age Prevalence Rates Excluding those Unknown.

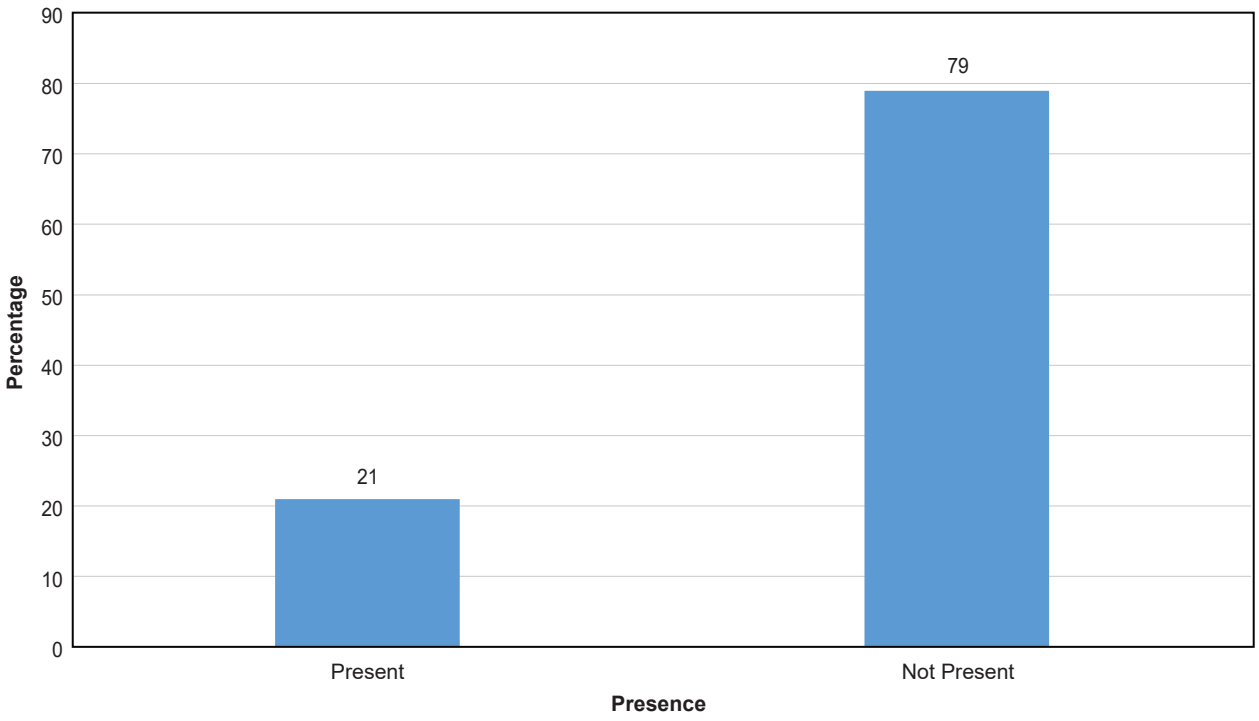

Figure 6.4. Prevalence Rates for Presence of Cribra Orbitalia.

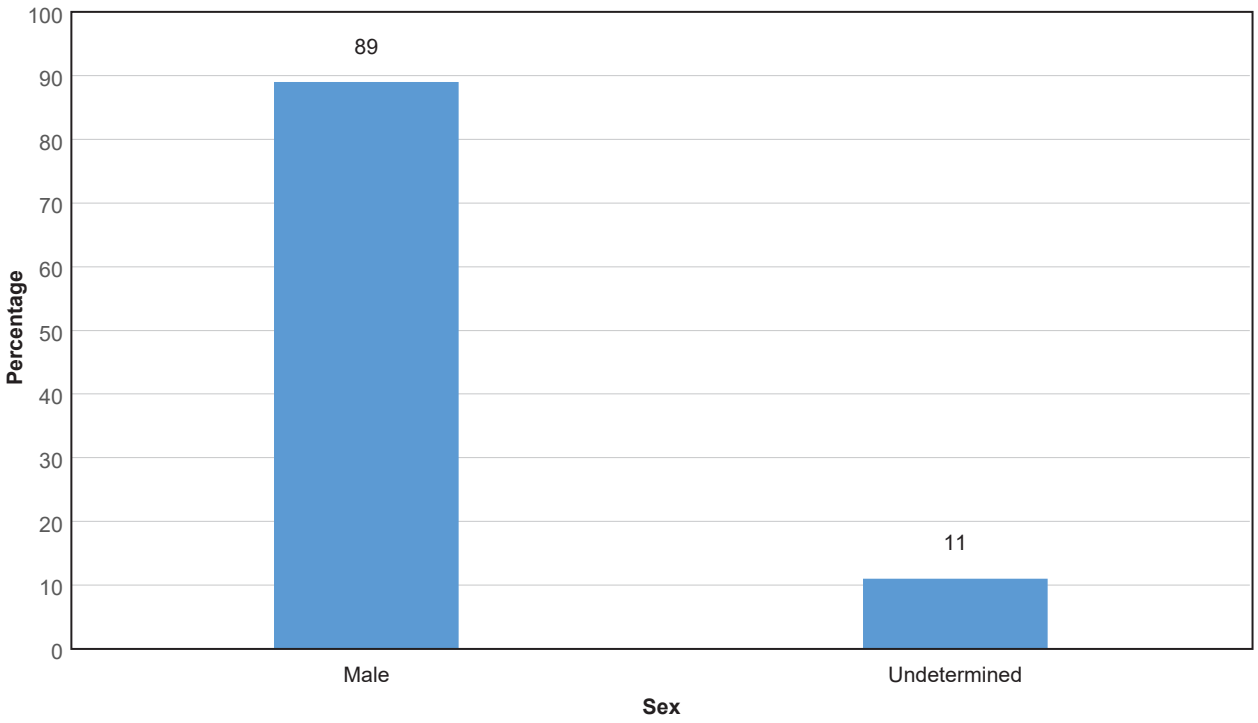

Figure 6.5. Cribra Orbitalia Prevalence Rates by Sex.

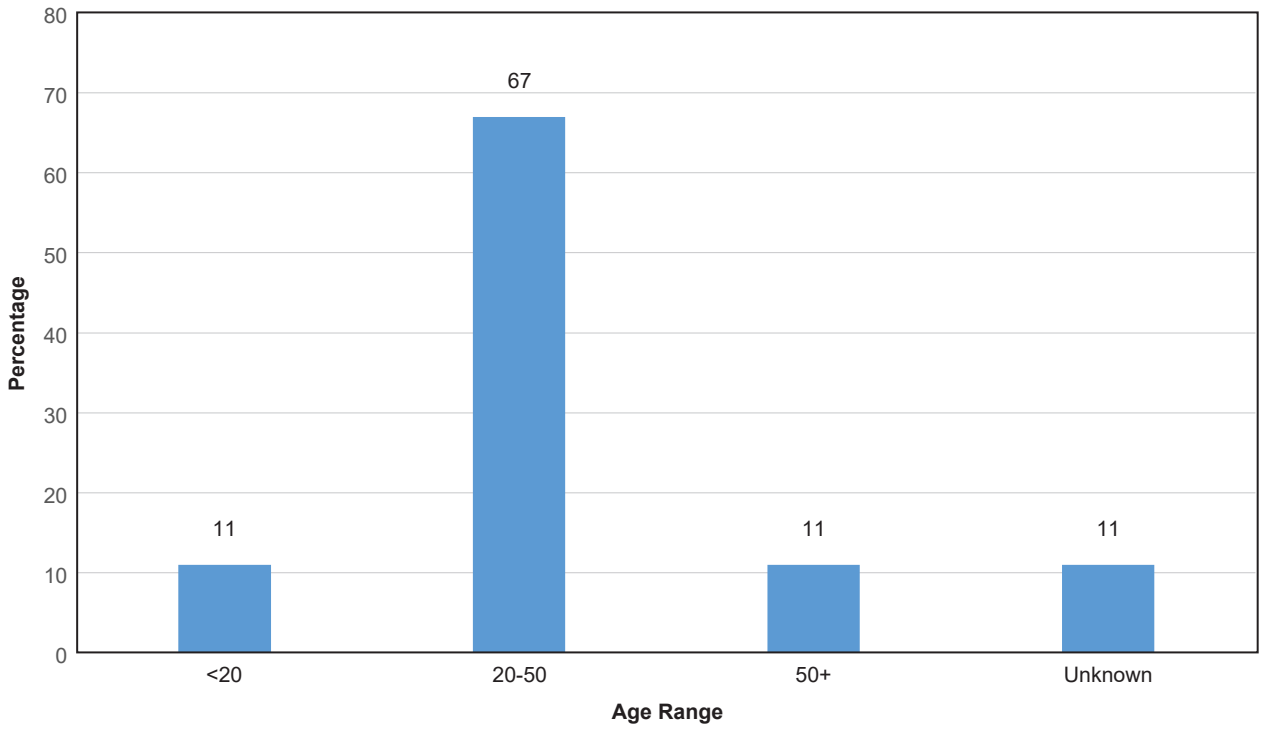

Figure 6.6. Cribra Orbitalia Prevalence Rates by Age.

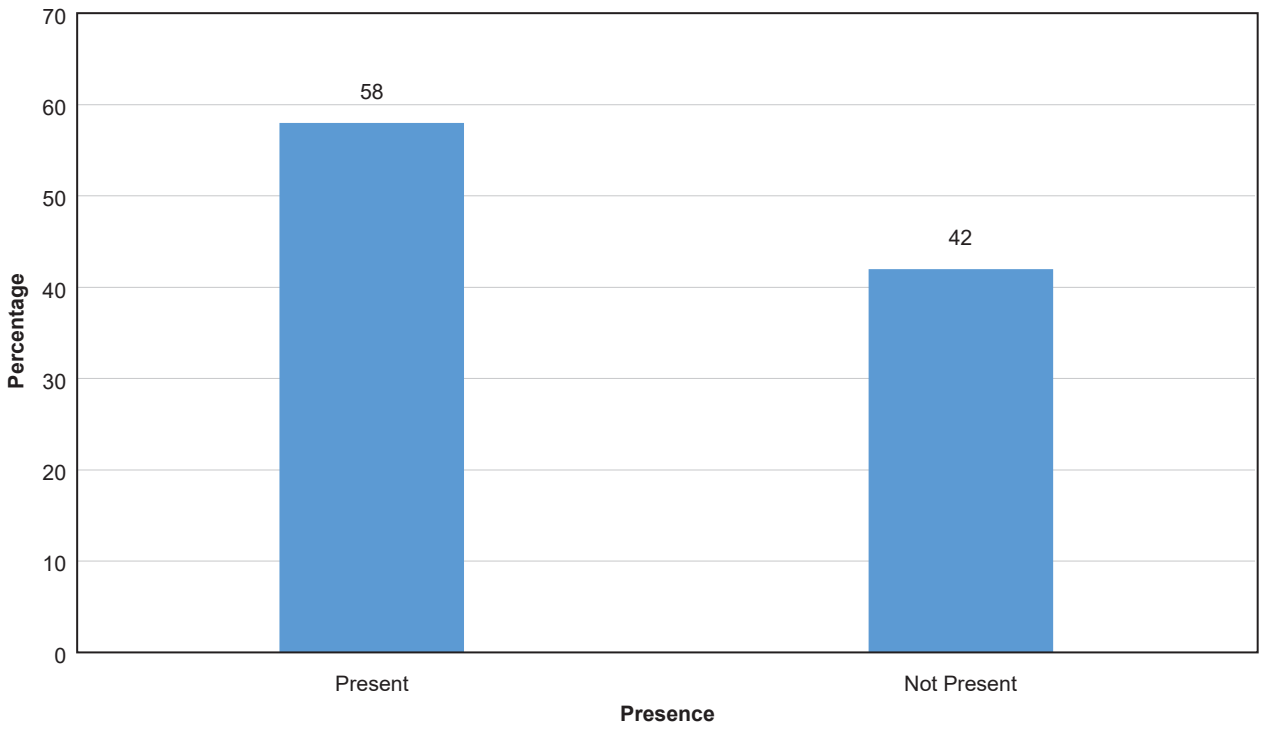

Figure 6.7. Porotic Hyperostosis Prevalence Rates.

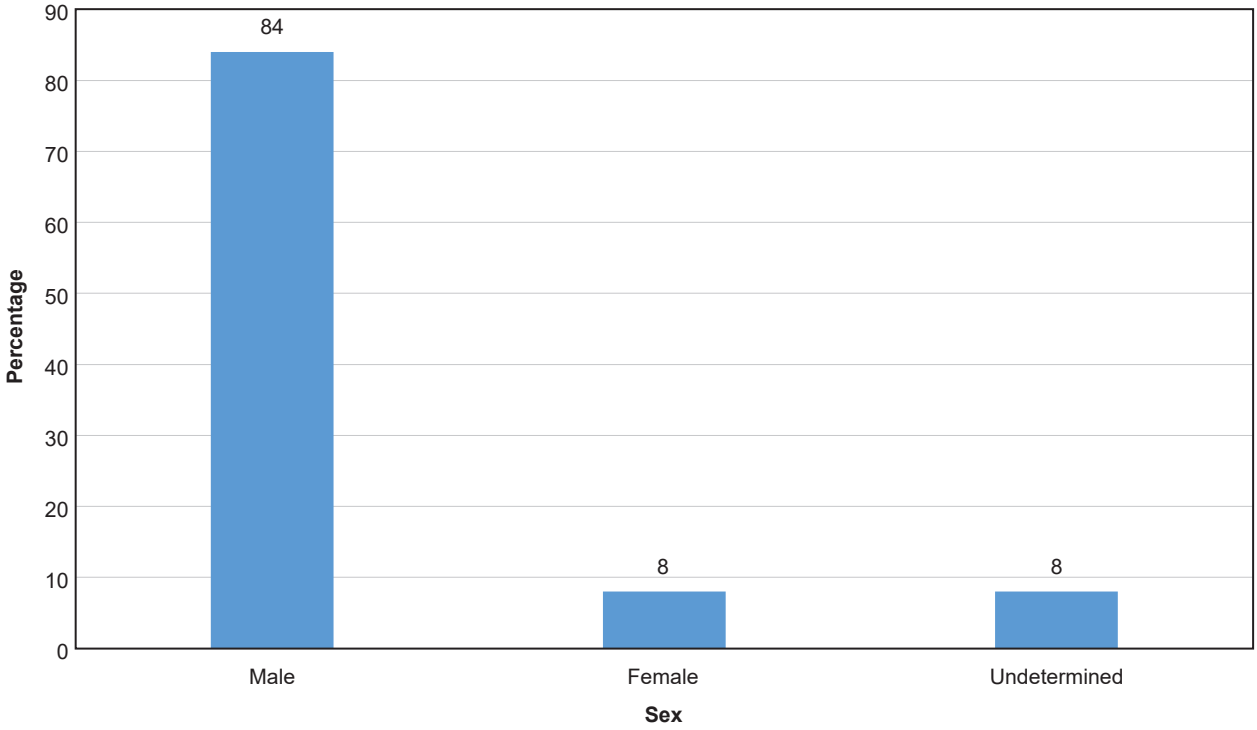

Figure 6.8. Porotic Hyperostosis Prevalence by Sex.

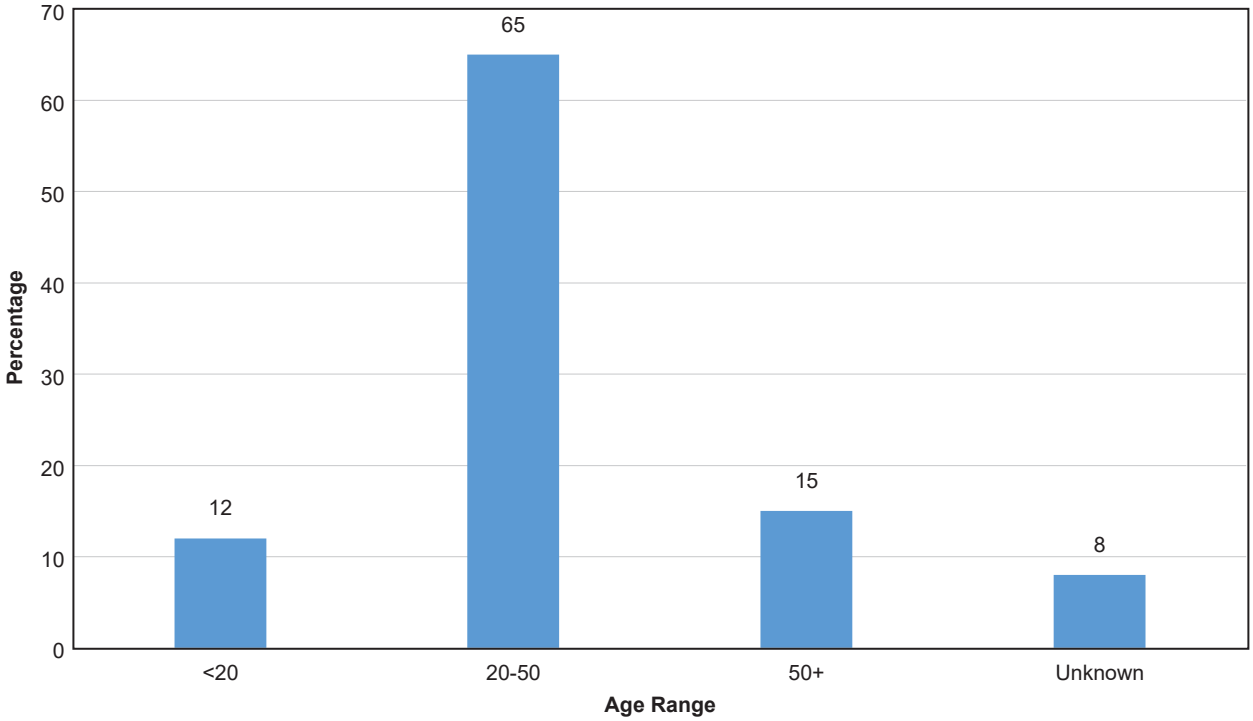

Figure 6.9. Porotic Hyperostosis Prevalence by Age.

LINEAR ENAMEL HYPOPLASIA

LEH was noted as present, absent, or unobservable. If an individual was noted as having LEH, this indicated an identifier of "Present" and meant the individual had one or more LEH lines present. For those noted as "Not Present," this indicates no LEH seen on the teeth. Individuals noted as "Unobservable" indicates that the dentition was missing pre-mortem or post-mortem and could not be assessed. Well over half of the individuals noted in this study did not have observable dentition to determine the presence or absence of LEH.

LEH was only noted on anterior (front) teeth and for those exhibiting LEH there was a range of scores denoting location of the dental lesion. Of the 29 individuals where dentition was observable 52 percent were noted to have LEH and 48 percent were noted as not displaying LEH (Figure 6.10). Scores for LEH ranges from 1–3, meaning linear horizontal grooves, linear vertical grooves, and linear horizontal pits. Only a single person was noted to have horizontal pitting present. With individuals showing LEH, a total of five showed more than one LEH present and typically there was more than one LEH present in their dentition.

Among those individuals where LEH presence or absence was observable, 73 percent of these individuals were noted as male and seven percent as female, with 20 percent of individuals exhibiting LEH having a sex that could not be estimated (Figure 6.11). Age ranges within this LEH sample were primarily in the 20–50 age category (60%), with a few individuals being noted as over 50 years of age (20%) and a few noted as less than 20 years of age (7%; Figure 6.12).

CARIOUS LESIONS/DENTAL MODIFICATIONS

As previously noted, given the state of remains or missing skeletal elements it was often difficult to fully access an entire skeleton to conduct a full biological profile. This was certainly the case when viewing detention given that some individuals sometimes only had a mandible present or sometimes only had the maxilla present with no mandible. The method used in these cases was then to note individuals who had any presence of carious lesions present and note individuals that had no dentition present as unobservable. There were some cases where alveolar resorption of the mandible or maxilla took place ante-mortem, and this was noted as well. This resorption occurs when the teeth are not present, and enough time has passed for this area to resorb the bony socket or "heal" over. This would indicate someone who lost their tooth/dentition for a long enough period that the bone was able to resorb. During potential forensic identification this would be an important biological feature to note about an individual.

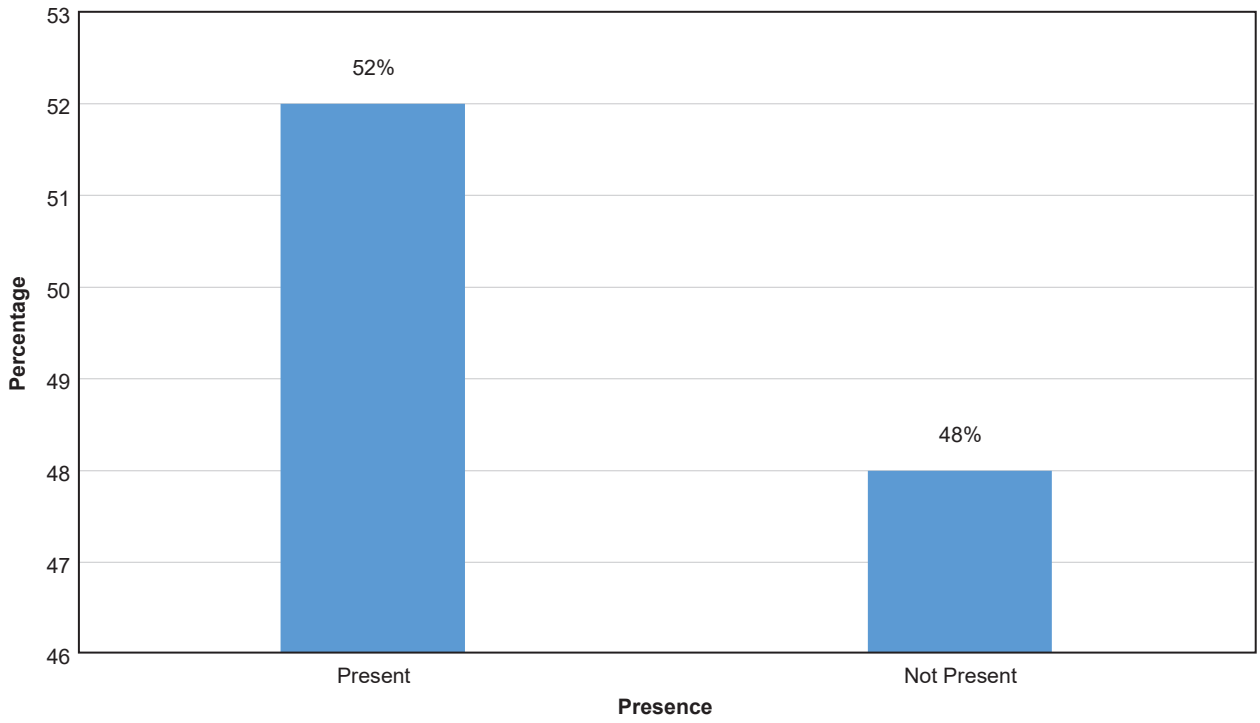

Figure 6.10. Linear Enamel Hypoplasia Prevalence Rates.

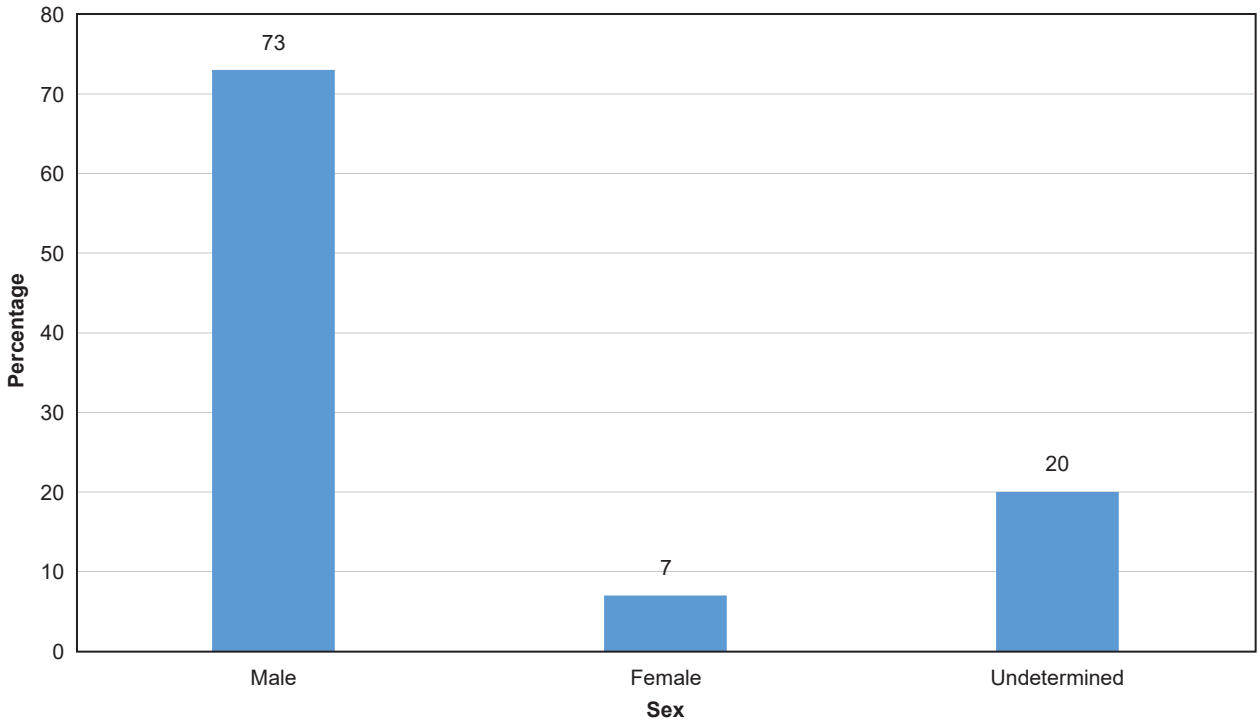

Figure 6.11. Linear Enamel Hypoplasia Prevalence by Sex.

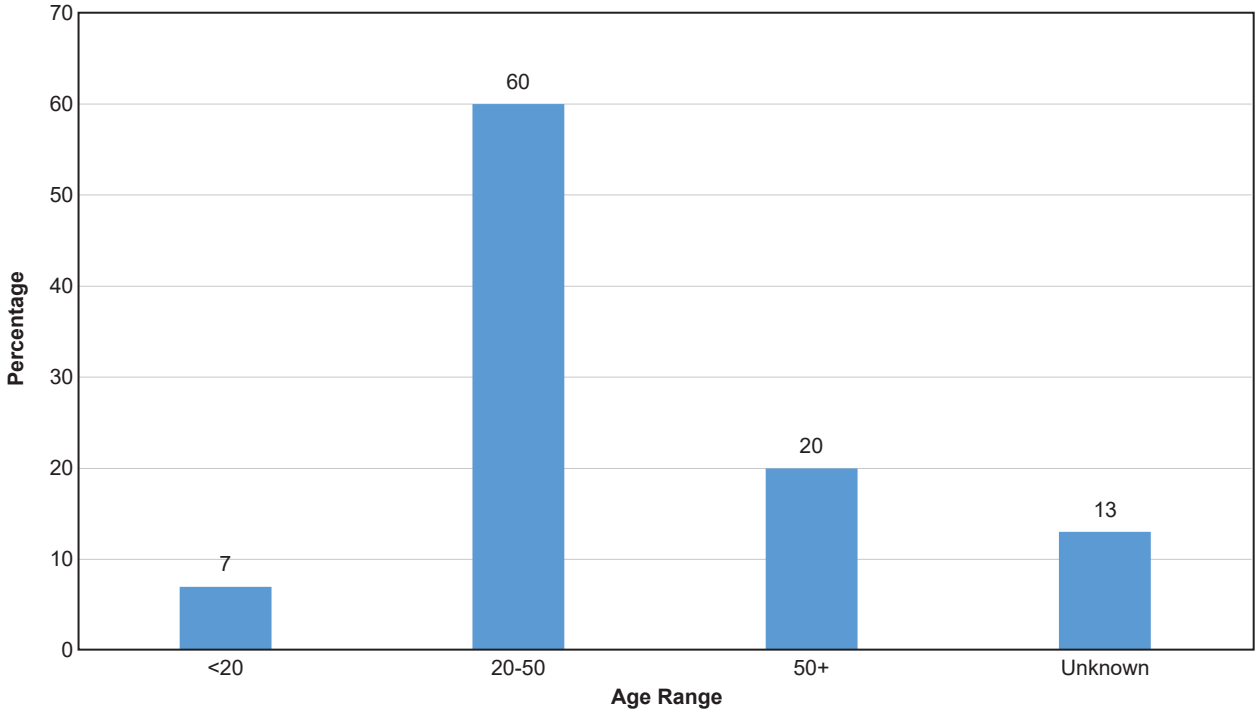

Figure 6.12. Linear Enamel Hypoplasia Prevalence by Age.

Carious lesions were be noted as well as dental modification. Within the sample of those where dentition was observable an estimated 56 percent of individuals were noted to have at least one caries present, and 44 percent did not show signs of a caries lesion (Figure 6.13) In this sample, there were 27 individuals (43% of total sample) that were noted as unobservable and did not have dentition that could be observed. This indicated that the teeth were cracked or missing post-mortem, or the maxilla or mandible were not recovered. Within those noted as having a caries present most individuals were noted as male (94%), while a smaller percentage had a sex that could not be estimated (6%; Figure 6.14). A majority of individuals (63%) who displayed a caries tended to be in the age range of 20–50, with 19 percent being 50+, 12 percent being 20 or younger and six percent could not be estimated for age (Figure 6.15).

The location of caries for a majority of these individuals were noted on the occlusal surface, interproximal surfaces, buccal surface, and a single individual had cervical caries (on the cemento-enamel junction). A majority of individuals were given a caries score of 1–3, with a single individual having a score of 4. The score of 1 represented early-stage lesion and was represented through grooves, pits, and dentin exposure. As scores progress the more severe form of caries present. However, overall, those displaying carious lesions had scores from 1–3, noting that they were not severe enough to denote an infection or severe inflammation in life.

Dental modifications include an array of forms including surface modifications, for example, fillings for caries, drilling without inlays, crowns, wear based on a specific use, and aesthetic modification (i.e., gold designs glued to teeth). Of those that were observable, 82 percent of individuals had a dental modification while 18 percent did not (Figure 6.16). Modifications tended to be used to address caries, by the use of gold or silver fillings. Those noted as unobservable, 19 individuals (30% of total sample) did not have dentition to observe given post-mortem damage or the unavailability of the mandible or maxilla. For those with dental modifications these primarily were represented by silver (amalgam) fillings used to address a carious lesion as noted above. No other types of modifications were present within this sample. In regard to sex an estimated 75 percent were noted as male having dental modifications and 12.5 percent represented females and individuals of a sex that could not be determined (Figure 6.17). Of those with modifications present, 50 percent were noted in the 20–50 age category, followed by 25 percent of individuals noted as 50+, 13 percent age 20 or less, and 12 percent could not be determined for age (Figure 6.18).

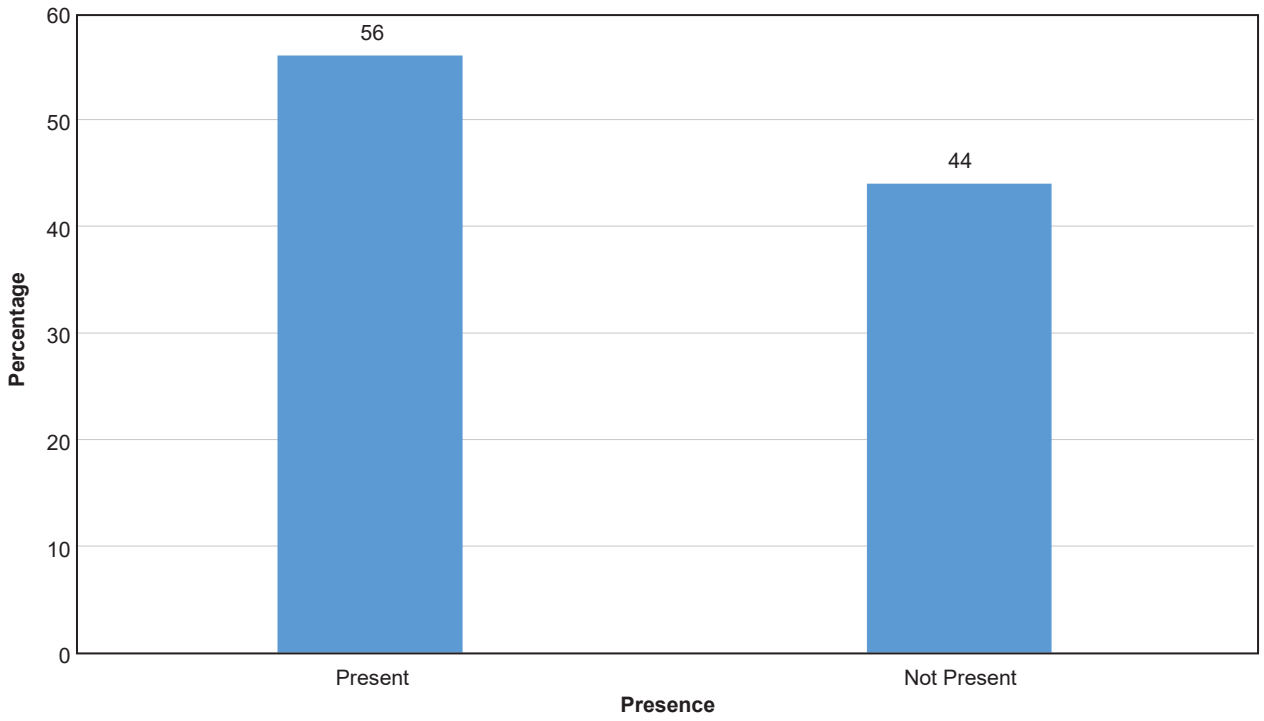

Figure 6.13. Caries Prevalence.

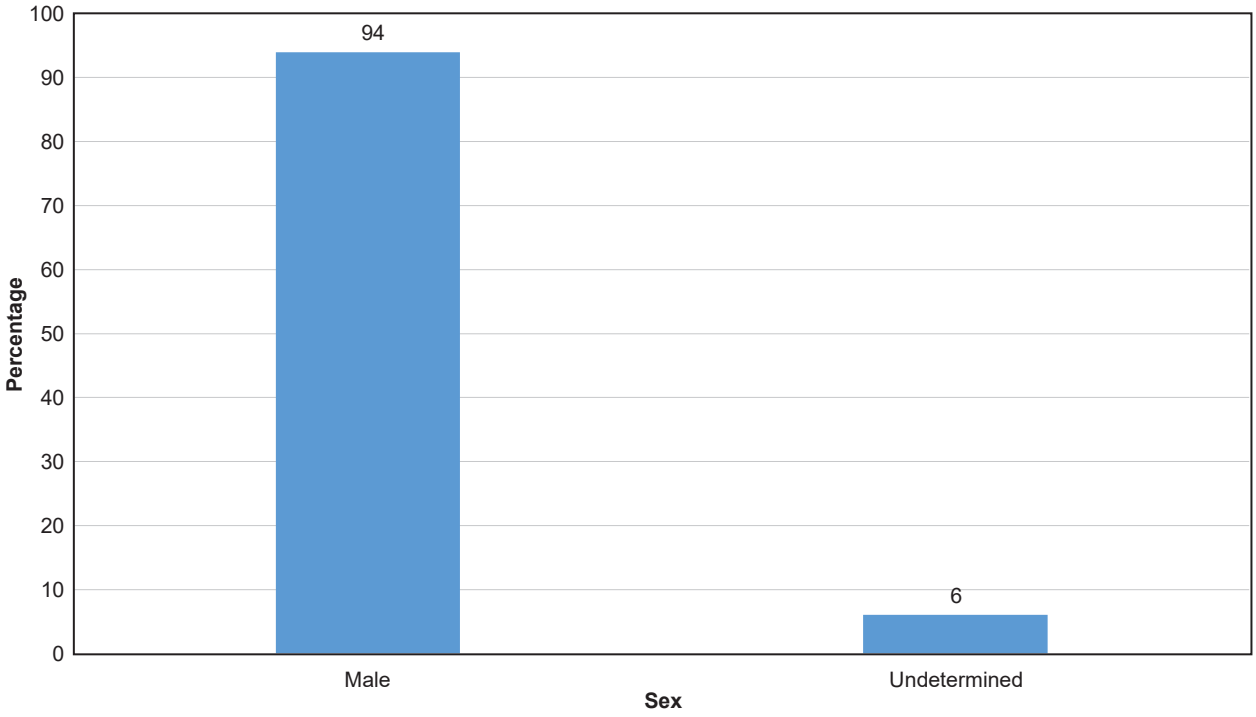

Figure 6.14. Caries Prevalence by Sex.

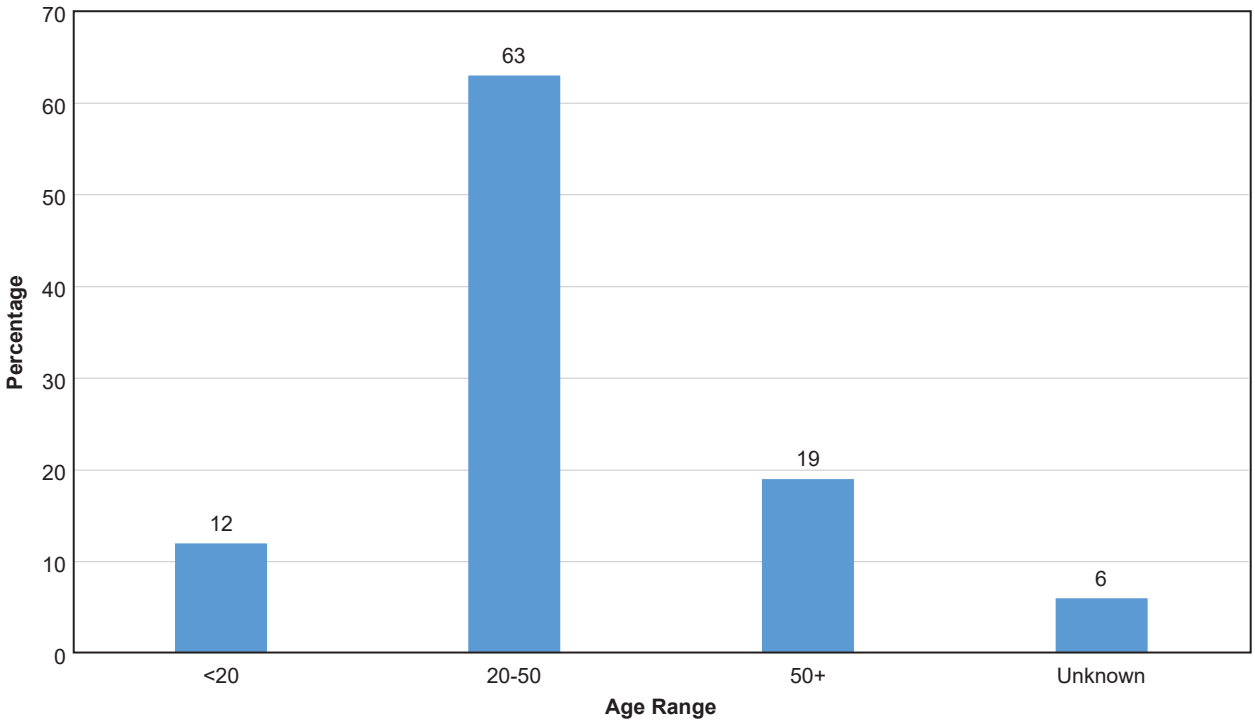

Figure 6.15. Caries Prevalence by Age.

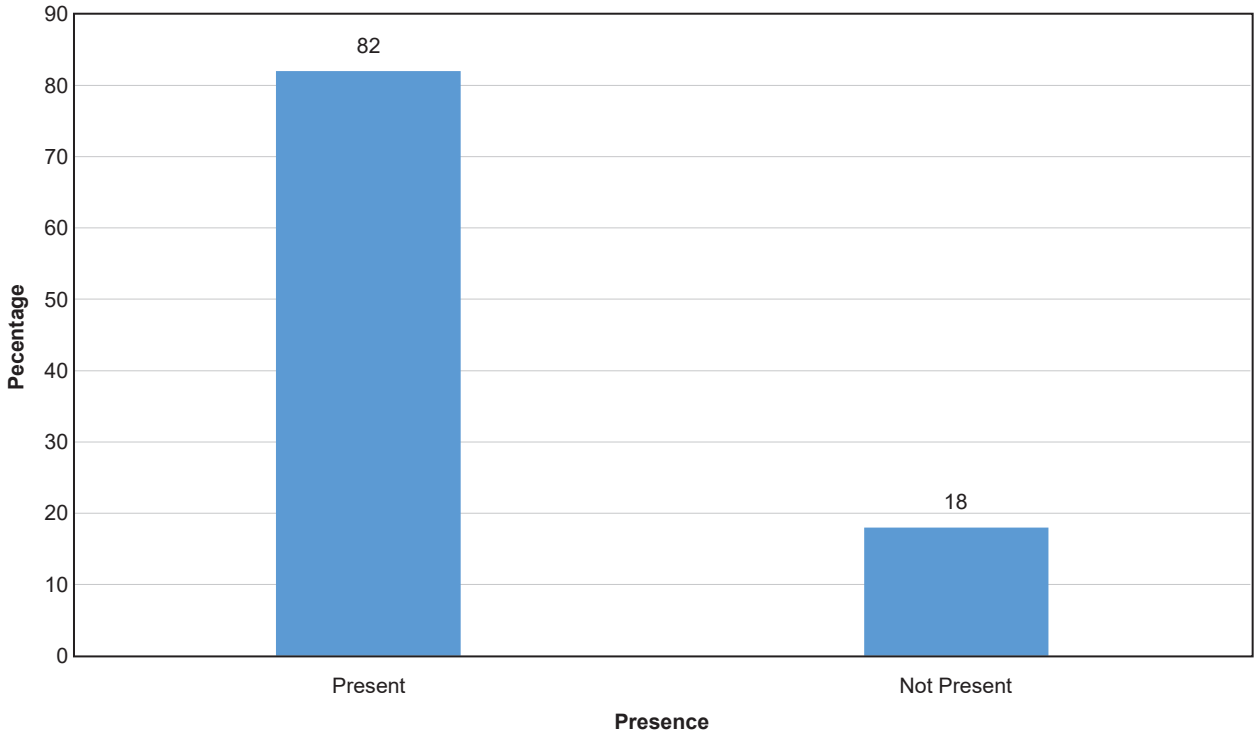

Figure 6.16. Dental Modification Prevalence Rates.

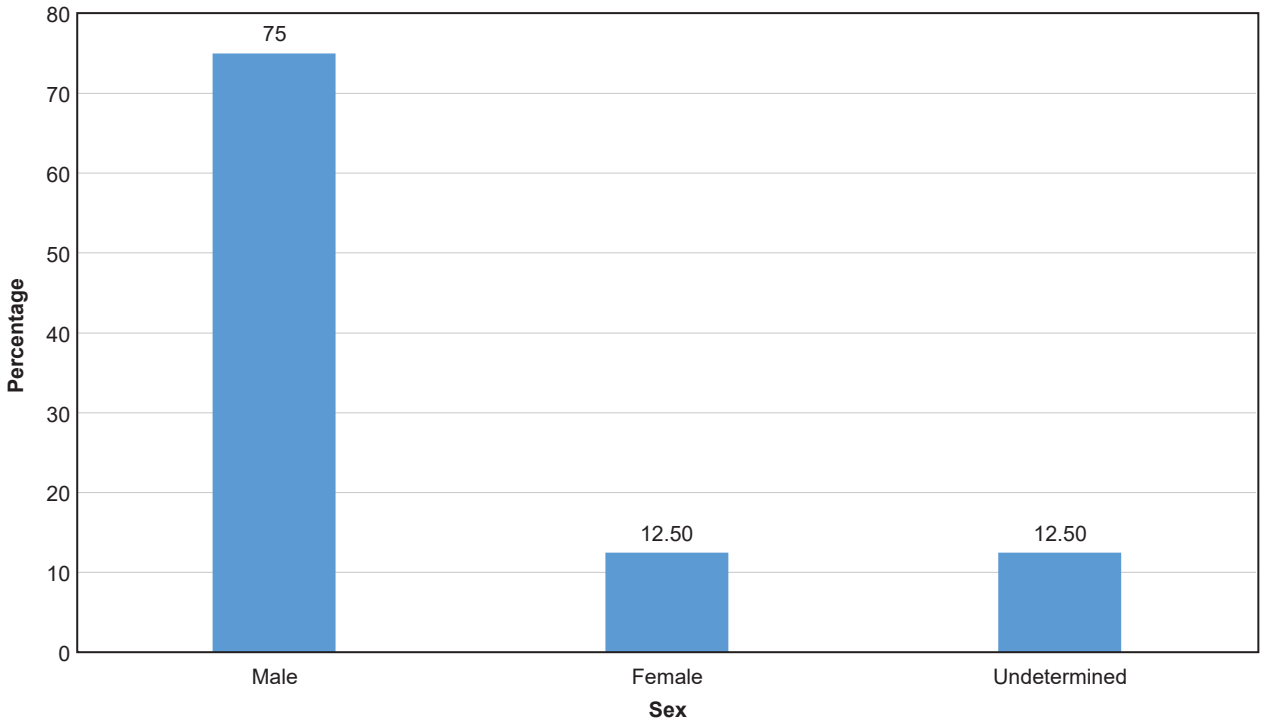

Figure 6.17. Dental Modification Prevalence by Sex.

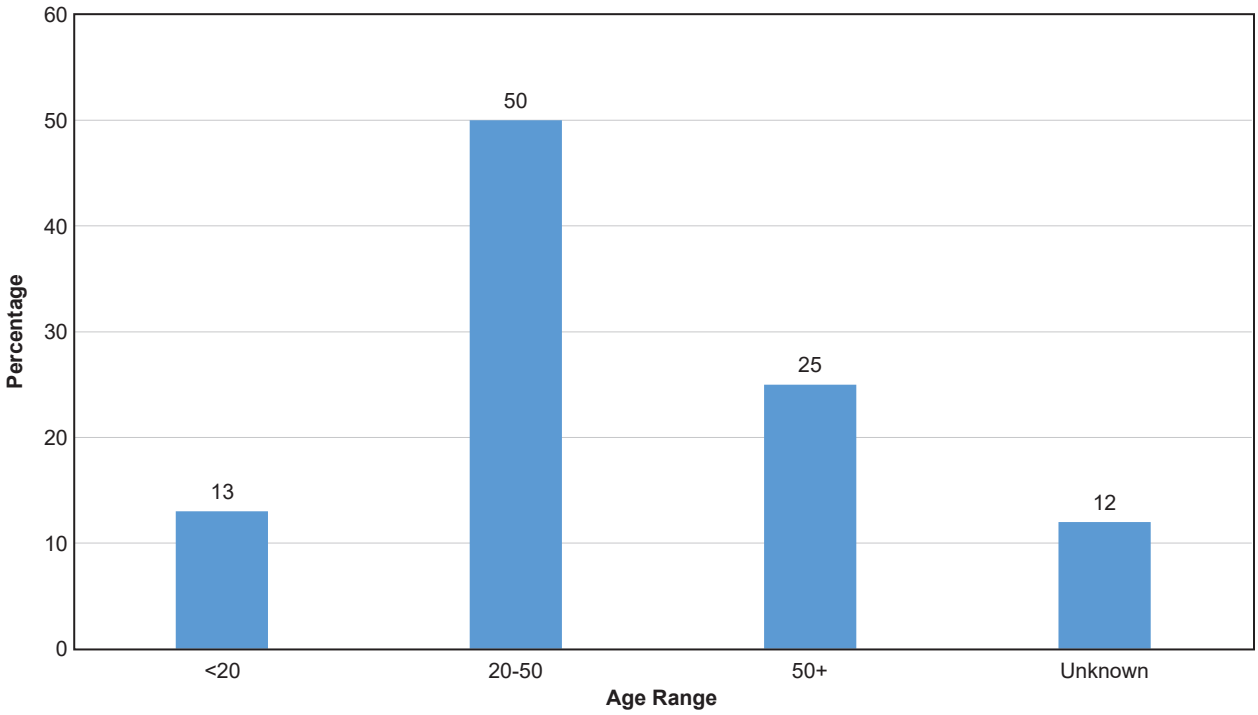

Figure 6.18. Dental Modification Prevalence by Age.

FRACTURES

Given the various state of preservation, being able to make a full skeletal analysis of fractures was impossible. In some cases, an individual would be brought to PCOME only represented by only the crania, a maxilla, long bones, or ribs. The state in which the remains would come depended heavily on where the remains were found and how long they had been exposed to the elements. Therefore, it seems more accurate instead of noting the presence or absence of fractures to note the level of healing that could indicate when the traumatic lesion occurred in general regardless of individual percentage of trauma.

Within the sample of 63 individuals a total of five displayed an ante-mortem bone fracture, which can be noted in the table below. The individuals are noted below by individual numbers created by the researcher in order to keep PCOME formal number anonymized out of respect for the individual and the potential for their identity to be noted. These fractures are noted in Table 6.2.

Table 6.2. Overview of Fractures within the Research Sample.

INDIVIDUAL	FRACTURE
Individual 1	Healed depressed fracture on the frontal bone near the glabella and extending to the left orbit.
Individual 2	Poorly healed distal fibula fracture.
Individual 3	Healed fracture to third right rib.
Individual 4	Healed fracture of left 5th rib, distal end.
Individual 5	Healed fracture to left and right nasals

Given the state of remains it was not always possible to observe if these individuals who had one noted fracture had any further fracture along their skeletons. However, those that could be noted were noted. All of the fractures appeared to be ante-mortem (experienced during life) and were either healed or poorly healed. While some of these may have caused discomfort at the time the individual was found deceased, these fractures were not acute or actively healing.

HISTOLOGICAL ANALYSIS

Of the 63 individuals total of 23 individuals had rib samples removed in order to observe histopathology and estimate age-at-death using histomorphometric age estimation methods. However, once the slides were prepared it was observed that all samples were affected by taphonomic destruction. Most of the samples appeared to have some level of bacterial tunneling (Figure 6.19 and Figure 6.20). This was identified to be Wedl tunneling and while the etymology of this is still unknown, it has been suspected and attributed to bacterial or fungal encroachment of the bone (Jans 2008;

Trueman and Martill 2002). The tunneling damage did not allow for accurate osteon count that is required in order to estimate age. The taphonomic destruction of micromorphology also did also allow the determination of any potential pathological diagnoses. However, this taphonomic change does give insight into the treatment and storage-related issues associated with these types of forensic skeletal remains. The presence of Wedl tunneling not only has biological significance but is also a significant observation in regard to the wider conversation of structural violence taking place to individuals that are categorized as UBCs. I have selected two images that demonstrate the taphonomic microdestruction. (Figure 6.19 and Figure 6.20).

Preservation and Taphonomy

Throughout this chapter issues of taphonomic processes related to environmental exposure and processes related to the lab and storage setting have been discussed. These processes significantly impacted the ability to have a complete biological profile and overall description of the individual. This occurs for several reasons, which will be discussed in the following chapter. Here, it is important to note exactly what types of taphonomic process we are engaging in within this specific skeletal sample (Beck et al. 2015). The major taphonomic process at play that makes a complete biological profile near impossible in this study is weathering from the sun and animal scavenging. All of the individuals noted in this sample were found exposed in the desert environment anywhere from several days to several years. This means that when PCOME received these remains they were at times so sun-bleached that the bone itself was peeling, so any type of analysis on stress indicators, such as CO or PH, were impossible to observe. Another significant factor is animal scavenging, which impacted the availability of remains to examine. There were various instances where some of the individuals in this sample were only represented by a maxilla, mandible, partial crania, torso, or lower extremities.

Another taphonomic factor to be noted here was storage and how this directly impacted possible observations. The lack of funding and space will be discussed in the following chapter, however, what should be noted here is that moisture and mold have and continue to impact the remains in storage.

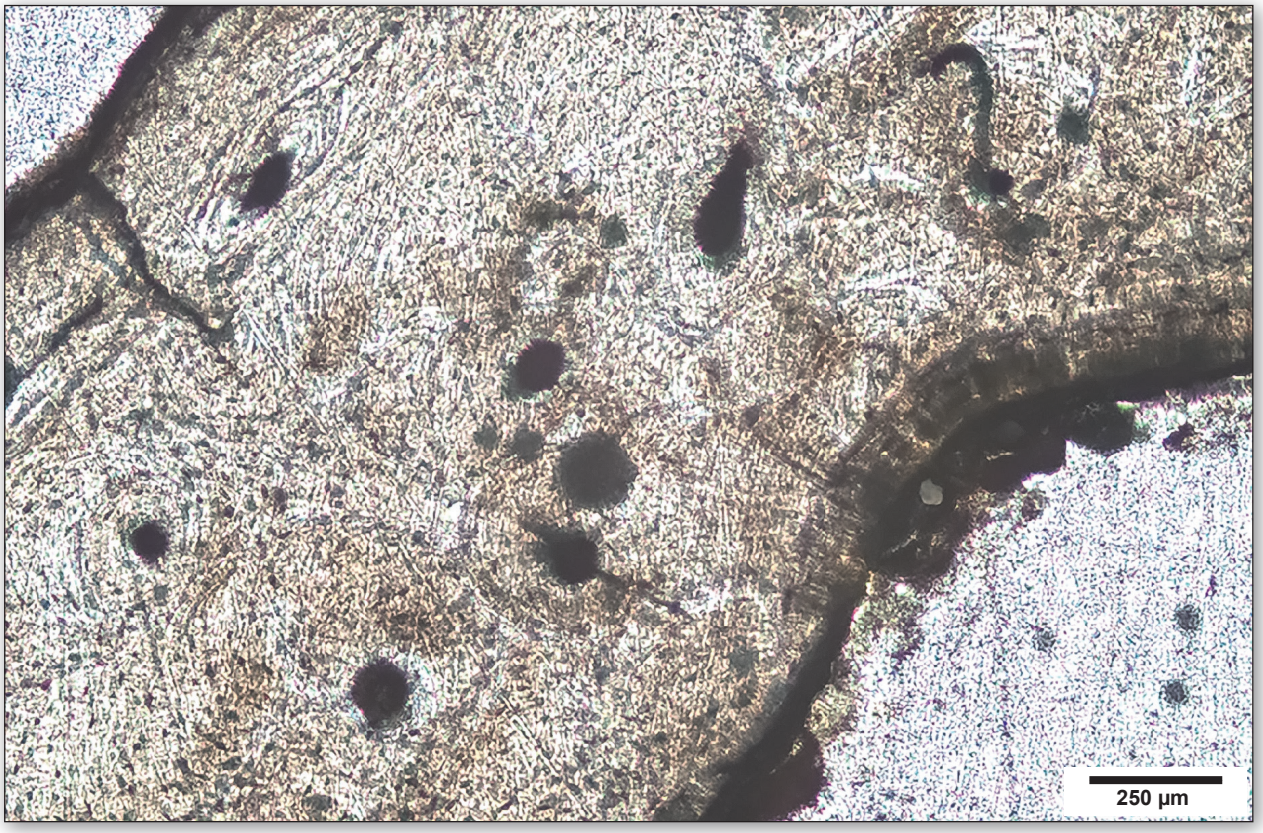

Figure 6.19. Evidence of Weld Tunneling in Histological Sample.

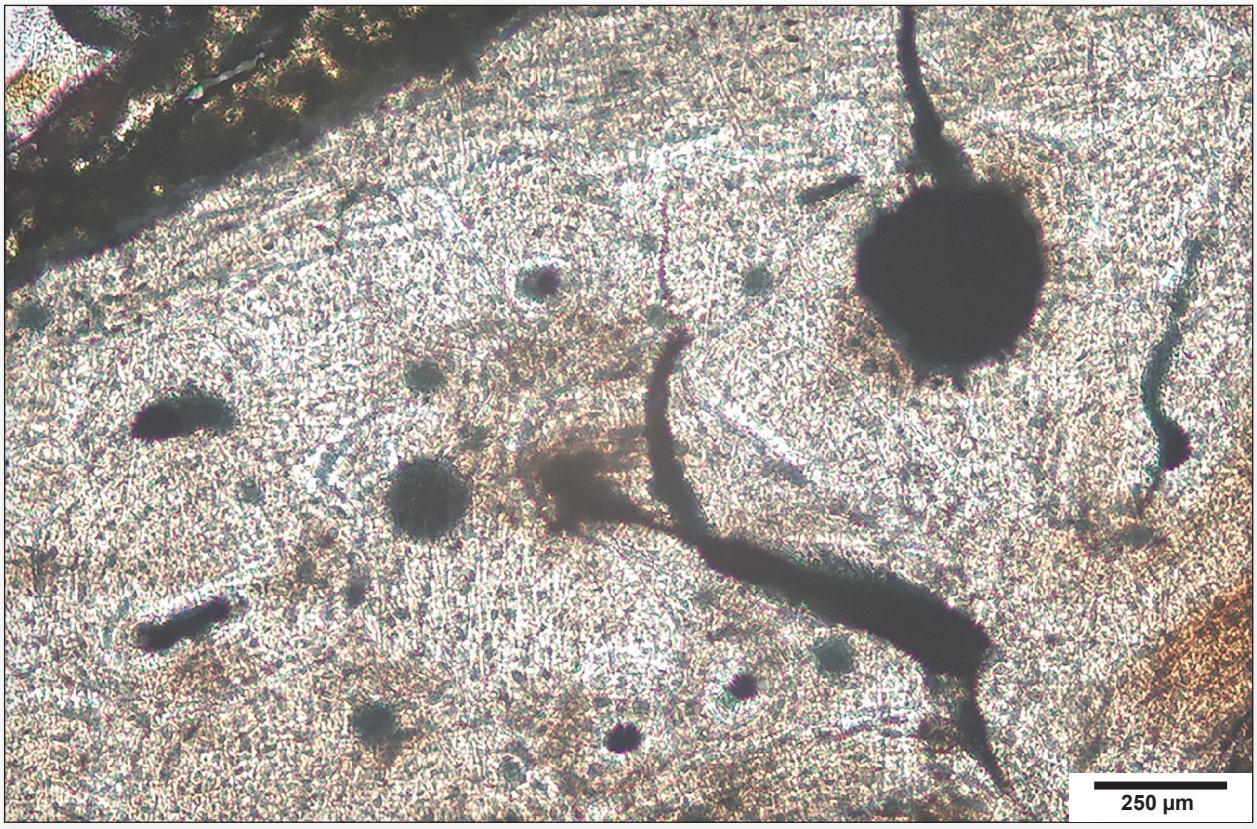

Figure 6.20. Evidence of Weld Tunneling in Histological Sample.

CHAPTER 7 INTERVIEW DATA AND COLIBRÍ CENTER ANONYMIZED DATA AND ANALYSIS

INTRODUCTION

The interviews and Colibrí Center anonymized data within this analysis is intended to be interpreted in unison with the skeletal/forensic data. Given that the skeletal data was acquired from individuals who immigrated within the last 20 years, the interview and anonymized data targeted interviews with individuals that have either immigrated or who were reported missing by a family member (though Colibrí) within the last 20 years. This chapter first discusses the findings of the 30 participants that were interviewed, followed by the anonymized data provided by the Colibrí Center.

The interview portion of this research consisted of asking research participants (n=30) approximately 13 IRB approved questions in Spanish (see appendix). These interviews were conducted in a semi-structured format to allow interviewees to add information as they wished to share while interviews were being conducted. Each interview lasted approximately one hour. Interviewees were first explained what the research was about, in Spanish, and then asked if they still wished to participate. If they decided that they did want to participate the researcher made sure to summarize what some of the questions would be and then check in once again with the potential interviewees to see if they wanted to proceed with the interview. Once interviewees consented per IRP protocol the interview began, typically in a public location, since this is where most participants felt most comfortable. Interviews were audio recorded only if the interviewees consented in doing so, if they did not the researcher would ask if taking notes would be a good alternative while the interview was in progress. While not all interviewees consented to being audio recorded, all 30 participants consented to note taking while the interview was in progress.

The second set of data to be examined in this chapter is the anonymized data presented by Colibrí Center. Special attention was paid here to the year that these participants were last seen. Within this data set information on missing participants was reported by family members, co-workers, and friends. Data collected included sex, nationality, and location where the participant was last noted to be alive. As previously noted, data provided by Colibrí was only analyzed for those participants reported missing within the last 20 years. While the data for Colibrí is more quantitative in nature it still provides a framework and overlaps to the data collected within the interview portion of this research.

ETHNOGRAPHIC INTERVIEW RESULTS

A total of 30 participants were interviewed in two primary locations: Vallejo, California, and Fresno, California. These two locations were selected as I had my own personal and familial connections to these areas, as well as the fact that these two locations have a significant migrant Latin American population living or working in the area. Interviews in their most general form tend to be qualitative in nature, however, interviews first noted basic demographic data that included gender, and location of origin of those interviewed. As the interview progressed information then became more specific regarding why they left, how they left, and if they were detained by border control. Any quotes used from participants are first noted in Spanish since that is the original language in which the interviews occurred, immediately below will be the English translation, which was conducted by me. Photographs that are included in this section were edited to maintain anonymity of the interviewees per IRB protocol (Figure 7.1). Photos of individuals, with typically their eyes being covered to keep these individuals anonymized. All images were taken with the individual's permission.

Gender

Table 7.1 lists basic gender information from the participants interviewed. Here it should be noted that instead of biological sex, the term gender was used. During the interview I simply asked them how they identified, and those responses are noted in the table below. This included 26 males and four females. While there is debate and reasoning between the differentiation of the terms sex and gender in bioarcheology, I have chosen to differentiate between biological sex (used in skeletal data) and gender (used in the interview data and Colibrí data; Dubois and Shattuck-Heidorn 2021; Ghisleni et al. 2016; Hollimon 2011). It is interesting to note however, that similar to skeletal data there tends to be more males in the group as opposed to females.

Table 7.1. Gender of Interview Participants.

GENDER	NO. OF INDIVIDUALS
Female	4
Male	26
Total	**30**

Notes: Gender was self-assigned.

Figure 7.1. Interviewees Having a Lunch Break among Co-Workers in the California San Joaquin Valley.

Age

The age of the participant was never specifically asked, however all participants interviewed were over the age of 18. Instead, what sometimes was noted was the age of first crossing, however, this often led to some sensitive topics regarding abuse, poverty, and neglect as minors. I tried not to dwell on their age at the time of their first crossing or negative interactions that they had while crossing. While that information would have been valuable, it was deemed more important to not cause any unnecessary harm or distress to participants. They were already being asked to disclose hard and often painful moments in their lives, so any additional information that would cause them psychological harm was avoided. Additionally, if it ever seemed as if interviewees were uncomfortable or were in distress, I would ask if they needed to take a break, or if they wanted to skip these types of questions. Again, while something as simple as someone's age while crossing does not necessarily seem harmful at first, it quickly became apparent that age was a sensitive topic to many of these participants. Therefore, no data regarding age is provided for the interview portion of this research.

Nationality

In asking interviewees where they were originally from, it seemed to be a big point of pride. Two of the interviewees even listed two locations since they felt strong ties to more than one place. The table below notes the various locations where participants were born and/or raised. Something to note is how these locations are listed, since this may be a bit confusing at first. To clarify all participants were from the country of Mexico which is why it is noted in parentheses (Table 7.2). However, some participants went into specifics and noted the town and state they were from, for example, "Ixtlahuacán del Río, Jalisco (Mexico)." This means the participant was from the town or city called Ixtlahuacán del Río within the state of Jalisco in Mexico. Other participants simply noted the state and the capital, for example, "Guadalajara, Jalisco (Mexico)." It certainly would have been cleaner to just note the state and capital, but again I wanted to note exactly how these interviewees identified their nationality. Who they are and where they are from plays a big role in the how, why, and where they decide to cross, a topic that will be noted in the latter portion of the chapter.

Table 7.2. Interviewee Location of Origin.

NATIONALITY	NO. OF INDIVIDUALS
Changuitiro, Michoacán de Ocampo (Mexico)	1
Chiapas (Mexico)	7
Durango (Mexico)	1
Guadalajara, Jalisco (Mexico)	5
Guanajuato (Mexico)	1
Guanajuato and Nuevo León, Monterrey (Mexico)	1
Hermosillo, Sonora (Mexico)	1
Ixtlahuacán del Río, Jalisco (Mexico)	1
León, Guanajuato (Mexico)	1
Michoacán (Mexico)	3
Morelos (Mexico)	1
Oaxaca (Mexico)	1
Puebla (Mexico)	2
San Juan de los Llanos, Guanajuato (Mexico)	1
Santa Rosa, Chiapas (Mexico)	1
Tequila, Jalisco (Mexico)	1
Tijuana, Baja California (Mexico) (but born and raised in Guanajuato)	1
Total	30

Childhood and Early Life

The interview began with noting simple demographic information, and then delved into inquiries of their childhood. Here it was of interest to really understand what everyday life could be like for them, including school, work, and chores. All 30 of the interviewees had their own stories of what their childhood was like. They all seemed to highlight their adventures as children, they certainly spoke of their hardships, but it also seemed important to them to highlight the good times too. While many of them had to work alongside their families they tended to fondly describe these experiences:

> Spanish: *Nos levantábamos no pues temprano salía el sol y ya andábamos en friega. Que serían como 10 gallinas allí y tres vacas. Ya salían pues mis hermanas a ver si habían puesto huevos las gallinas, y a ordenar las vacas y ya yo, mis hermanos, y mi apa nos íbamos más pal cerro para trabajar. Y pues ya ve uno que diario se quiere lucir y no pues nos íbamos a trabajar y ya ve a ver quién termina más rápido y ya después de trabajar si hacia calor había un cenote allí cerca y nos íbamos a nadar buen rato. No muy bonito la verdad mi pueblo todos allí nos juntábamos. Pues es lo que había y si allí no la pasábamos buen rato con los amigos y todos allí.*
>
> English: Well, we got up early, whenever the sun came up and we were ready to go. We had about, what was it like 10 chickens there and three cows. My sisters would go out to see if the chickens had laid eggs, and to milk the cows, and I, my brothers, and my father would go to the hills to work. And well,

> you know how it goes you want to show off, we went to work, and you see who finishes faster and after working if it was hot there was a cenote nearby and we all went there to swim for a while. It was very pretty, to be honest, all the people [kids] in my town, we all used to get together there. Well, that's all there was, it was a good time there, we had a good time with friends and everyone there. —Participant 8

Another interviewee noted that their family would often go on vacations, typically to visit the towns where patron saints were worshiped. For example, they explained that they would go yearly on a pilgrimage to see "*El Señor de la Salud*" (the patron saint of health). They would all typically go in the back of their parents' trucks or cars, usually crammed in, no seatbelts, with the smell of bean "*lonches*" waiting for them when they got hungry. While they did not have a lot of money these small trips to new towns to go visit various patron saints were highlights in their childhood and were reflected on warmly. A third individual noted a peculiarity that not many consider when they think about individuals crossing the border. They described that they were high school graduates, they weren't uneducated, they just came from a poor family. For some of these participants, it actually was possible to graduate or at least get some form of formal education. In fact, it was through going to school that they would sometimes get opportunities to experience healthcare.

> Spanish: *No si claro que nos mandaban a la escuela no mi mama era de ese pensamiento de que iba uno a la escuela porque iba. Así que si hacíamos nuestros quehaceres temprano, luego nos cambiábamos en nuestros uniformes, nos llevaba muy peinaditos mi mama y con nuestra comida y nuestros libros. No si nos llevaba bien limpiecitos y listos. Pero eso si después pues la tarea si pero también pues para trabajar.*
>
> English: No, of course they sent us to school, no, my mom was of that thought that you went to school because you went. So we did our chores early, then we changed into our uniforms, my mom would take us with our food and our books. No, she certainly took us well, clean and ready. Then after school yes, we had to do homework, but we also had to work as well.

Regarding how healthcare sometimes played a role in school, this same participant noted,

> Spanish: *Pues si uno se ponía malo o pues algo hacía ya maestra o director les decían a nuestros papas pues miren témenos un doctor o una clínica que puede mira a sus hijos, y pues doctor que ayudaban allí los de la escuela y pues así podíamos ir, y pues a veces también tenían sus clínicas que llevaban allí al kínder o a la prepa de vacunas o dentistas o pues cosas así, no si estaba padre.*

English: Well, if you got sick or something like that the teacher or principal, they would tell our parents, well look we have a doctor or a clinic that can look at your children. Yea there were sometimes doctors that helped at the school we could go, and sometimes they also had their clinics that took them there to kindergarten or to the high school for vaccines or dentists or things like that. Yea no it was actually pretty cool.—Participant 16

While childhood experiences varied among the interviewees, there were several trends among these participants. Typically, all of them worked; this was a required part of everyday life. Some would go to work and school, but the theme here seemed to be that they had to actively engage in some type of work to help out their family. This task could range from going to school and doing housework before and after to milking cows, working in the fields, and then going to school. There was a wide range here of activity individuals could do, but again the theme was the same: you were expected to contribute as a family member regardless of age. It also became clear that as they started to grow older, they began to face similar hardships. There were various realities they needed to face; one of them, which became more serious as they got older, was providing more financially for their entire family and being able to also care for the wellbeing (physical health) of family members. This means that a lot of these interviewees not only had the stress of work and school but as they got older, they were also expected to care for sick family members, which left very little time for them to care for themselves. Receiving care when they or their family members were ill, had a toothache, or experienced an infection was important but not always possible. Discussions of their childhood, their daily chores and going to school prompted them to start the larger discussion of how they were able to care for themselves and family members physically and emotionally.

Accessibility to Healthcare

Often in studies of border crossers the only focus tends to be on how they crossed, which is certainly important, but again I wanted to understand the underlying factors and what their lives were like that led them to the position of deciding to leave. Interviewees were asked about accessibility to health care (general doctors, dentists, pediatrician, etc.), access to clean water, and food. This certainly depended on where the participants were from, if they were from a rural area accessibility to anything was very difficult. However, even for those that did have medical care in proximity, actually visiting a doctor was logistically challenging. Participant 1 explained his early childhood experience and how this ultimately impacted his ability to get access to proper medical care.

Spanish: *Trabajábamos yo y mis hermanos en el campo teníamos a ver elote y frijoles, estaba pero bien caliente. Uno pues trabajaba todos los días, pero no más sacábamos para comer, así para vender pues no había.*

English: Me and my brothers worked in the field, and had corn and beans, it was very hot. You worked every day, but we had enough to eat, we never really sold anything, we did not have enough to sell.—Participant 1

Days were typically spent working on family land and what they harvested was literally what they ate. Other times they would swap goods with neighbors, for example they would give the neighbors some of their beans and the neighbors would then swap them with rice. To clarify this was not the case with all interviewees, some did speak about a more middle-class lifestyle, however, overall, the same sentiment of not having enough to really live on echoed throughout all the interviews. This same individual, Participant 1, also explained that while medical care was an option it was often difficult to travel to locations with access to healthcare, but the time spend going to receive care was also an issue.

Spanish: *Mire pues de donde estábamos, era como unos 30 minutos para ir a la clínica, hacia que no tan lejos. El problema es que, pues si uno va al pueblo para ir al doctor, se tiene que levantar temprano y agarramos el camión, cambiamos de camión, y luego a ser fila. NO pues como quien dice un día allí fácil y eso si uno va temprano y no le toca espera, a veces uno todo el día allí se queda parado y ni lo ven a uno pues por que cierran.*

English: Look, from where we were, it was about 30 minutes to go to the clinic, it wasn't that far away. The problem is that if you go to town to go to the doctor, you have to get up early and we grab the bus, change busses, and then wait in line. So that's easily a day if you are able to just go and stand in line, and that's if you go early and don't have to wait, sometimes you stay there all day, and they don't even see you because they have to end up closing.—Participant 1

Another interviewee (Participant 2) noted similar hardships especially when telling me that he would make about 100 pesos a day (approximately 5.86 US dollars at today's exchange rate). This means that not only are they not making enough money to live and provide for their families, but if they decide to go to the doctor, they are giving up that day's pay and having to spend money to get to the doctor's office. When I asked about money spent to go get medical care the interviewee responded,

Spanish: *… oh no pues eso si como quien dice es otro rollo. A ver pues si témenos carro pues para la gasolina si no pues para el camión. Y uno de aquí pues no es desperdiciado nos hacemos nuestros lonches aquí de frijol para el camino. Pero si va a ir uno al pueblo pues de una vez vamos para comprar lo que uno necesita así que vamos varios. Y pues los gastos diarios suelen a pasar, aunque uno no quiere. Pero pues si vamos de emergencia ya que uno no aguanta un dolor pues es más rápido, pero si vamos con tiempo pues vamos comprando lo que se ocupa porque no va uno al pueblo a cada rato.*

> English: … Oh no, well, that's a different story. Let's see, then, if we have a car, then for gasoline, if not, then for the bus. And one being from where we are from, well we are not wasteful we make our lunches here of beans for the road. But if you're going to go to town, then we're going to buy what you need, so several of us are going. And well, expenses usually happen, even if you don't want to. But if we go in for an emergency, because you can't stand the pain, we have to go pretty fast, but if we go with time, we buy what we need because you don't go to town all the time.—Participant 2

This tended to be a trend with interviewees, while medical care was available, it took quite a bit of time to get there and typically they had to get there through public transportation or by asking for a ride from someone who had a vehicle. They also needed to account for lost wages and money spent while in town. Sometimes since trips to town were so infrequent, they would take these opportunities to take their entire family to town and get things they needed. So, if someone decided to go to the doctor, they had to plan it out, because in between transportation and waiting in line at a clinic, that took well over half the day. Sometimes they would go through all of this only to have the line be so long that they never got to see the doctor at all, so they either had to come back or search for some sort of alternative care, typically with a folk healer or *curandera/o*.

The time commitment does not even begin to account for the lost wages that occur. A lot of the interviewee's participants were self-employed, working on family land or on another family's land, so if they decided to take a trip to the doctor this was on their own dime, and they forfeited their income for the day. So, the expenses here were not only regarding time, planning, travel, and paying their expenses, but also giving up time that could have been spent working.

With all this in mind, this would "work" if the medical facility was nearby, as noted with Participant 1. If the hospital or clinic was farther out, one would also have to account for staying the night and potentially multiple days of lost wages. A trip to the doctor was not as easy as hopping in a car and headed out for a scheduled appointment. This is why many of the people interviewed noted that they went to see a doctor or sought medical care only when they felt it was absolutely necessary.

When speaking about medical care with some of the interviewees this often led to conversations about mental health. So, I decided to ask them what that was like for them, were they able to receive mental health services. Some brushed off the question and made it seems like a non-issue while others did extrapolate more on this. One interviewee noted how health scares led her and her family to have psychological repercussions (i.e., depression and anxiety) which unfortunately was left unaddressed. Participant 27 spoke to me between sighs saying,

Spanish: *… no, yo soy una de 10. Entonces imagines mi pobre madre, uno tras otro tras otro y ella no se cuidaba porque decía que eran los que dios le mandaba. Y yo no sabía de eso de cuidarse en ese entonces. Así que yo veía a mi madre, diario embarazada, pero aún tenía que cuidarnos, hacer los quehaceres y pues hacer de comer. Así que nosotros los mayores pues le ayudábamos como podíamos, mi papa pues se iba a trabajar con mis hermanos y a nosotros las mujeres nos tocaba.*

English: … No, I'm one of 10. Then imagine my poor mother, one after the other after the other and she didn't take care of herself because she said they were the ones God sent her. And I didn't know about taking care of yourself back then. So, I saw my mother, pregnant all the time, but she still had to take care of us, do the chores and make food. So since we were the older siblings we helped as best we could, my dad went to work with my brothers and it was our turn to do it.

At first when speaking about her mother's multiple pregnancies I expected the conversation to carry on regarding how hard physically it was on her mother to bear so many children. While this did happen, the interviewee also spoke of the very real fears her, and her siblings experienced with her mother's health.

Spanish: *No se como decirle, pero haga de cuenta que un constante así como… como… era un pesadia pues. No sabíamos si llevarla al doctor cuando se ponía mala o esperarnos. Pues no uno no sabe cuando es algo grave, y yo era la mayor así que me tocaba casi a diario a mi a decidir. Si dejamos a mi mama en cama, la llevamos con el doctor, le hacemos tes… pues no la verdad no sabia yo ni para donde darle. Y mis hermanitos pues allí también mi mama no podía, así que nos tocaba a las grandes, y no me toco a ser a mi como mama muy joven. Pero que hace uno su mama esta mala y pues témenos que cuidarla… si lloraba y pues pero que hago no? Ósea no más rezábamos y pues le pedíamos a dios que cuidara de nuestra madre, y pues con el Jesús en la boca, hasta que gracias a dios ya no encargo. Pero no si no la vimos difícil con mi mama diario mala…*

English: I don't know how to explain it to you, but pretend that a constant like… like… it was a nightmare. We didn't know whether to take her to the doctor when she got sick or wait it out. Well, no, you don't know when it's something serious, and I was the oldest, so it was up to me almost every day to decide. If we leave my mom in bed, we take her to the doctor, we give her teas… Well, no, the truth is, I didn't even know where to turn. And my little siblings, well, my mom couldn't do it on her own, so it was the job as the oldest, its like a became a young mom. But what does one do? My mom was sick so I had to take care of her… yea I cried and well, what do I do, right? We just prayed and asked God to take care of our mother, and just worried

> all the time, until thank God she stopped getting pregnant. But yea it was difficult seeing my mom always having health problems.—Participant 27

She explained sometimes she couldn't eat or sleep, she was so scared something was going to happen to her mom. She became withdrawn and lost weight because she was so nervous and stressed out. When I asked her if she ever sought out help for this, she chuckled and made it very clear that out of all the worries she had, this was the least of them, she could handle her stress. In short, her own mental health was an afterthought:

> Spanish: *… ay no por favor no, si apenas podía con mi alma, y cuidando y llevando mi madre al doctor, no… no que iba yo hacer allá. No yo le recaba a nuestra virgencita y pues ya allí queda no…*
>
> English: … Oh no, please, no, if I could barely handle what I had on my place, and taking care of my mother and taking her to the doctor, no… Not what I was going to do. No, I prayed to the virgin Mary and that's it, no…—Participant 27

In general, the older they became the more their family depended on them to provide for the family at large. This could be financially or in taking care of other siblings and doing household chores. This sense of duty to provide for their parents and siblings is what began to bring up the idea of having to leave. Certainly, many of the research participants experienced family members and friends leaving to "*el norte*" (the north), but it was not something, in their childhoods, that they did not have to worry about quite yet. So, when the time did come to discuss how they could begin helping their families at a larger scale, crossing the border to the US was not a new concept. It is something they were raised around, family members left and sometimes they would come back. Other times they would just send money, and unfortunately other times, they were never heard of again.

Reasons for Leaving

Deciding to leave one's home is a difficult decision, and while the reasoning for why they left can be quite complex I was able to create some categorical trends with the answers given (Table 7.3). It should suffice to say that while reasons are noted in the table below, it does not fully encompass the complexities of why they decided to leave, which will be addressed further in the analysis. In some instances, interviewees explained that another reason was just opportunity. So, for example they did need to leave for economic reasons, but they did not know when they wanted to leave, the reason they did decide to leave was because it was opportunistic (i.e., someone else they knew was going to cross). It was this opportunity that propelled them to make the decision to cross at that point in time.

Table 7.3. Participant Reasons for Leaving Mexico.

Reason	No. of Individuals
Economical	23
Economical/Wanted to grow his family	1
Economical/Drugs	1
Economical/Whole family moved	1
Family forced him	1
Husband/Pregnancy/Money	1
Indigenous/Economical	1
Vacation and then to work	1
Total	**30**

While many participants decided to cross primarily due to economic factors, a few participants wanted noted that there were often more reasons at play that were equally as important. Based on this I deemed it important not only to note these factors but also give a brief explanation behind them. For example, one of the participants noted that not only did they need to leave for economic reasons, but they also really wanted to start a family and in this instance the participant knew this would not be possible without leaving. There was no money or job opportunities so if he wanted to be able to provide for a family he needed to leave. A second participant noted economic reasons, but also that they were starting to be forced to sell drugs—not consume them, just sell them in their town. This participant began receiving threats, that if they did not start selling drugs there would be consequences, so he knew he needed to leave. A third participant noted that their entire family decided to leave given the poor economic situation, so they came over to the US as a group. Participant 4 noted that his family actually forced him to go to the US. He explains,

> Spanish: … *estaba todo duro por allá en mi pueblo, y pues me dijo mi ama y mi apa, no mijo pues se tiene que ir pa ayudarnos.*
>
> English: … well, it was hard in my town, and well my mom and dad said, well son, you got to go to help us.—Participant 4

This interviewee was the older of eight children, so the expectation of his family was that he needed to help provide. So, he was not given much of a choice and sent to the US. One of the women (Participant 10) who was interviewed noted that she left because of her husband. She was pregnant with their first child and her husband had already come to the US. In her town there wasn't much for her, so she decided to keep their family together in hopes of economic prosperity, so she actually crossed while pregnant with her son.

> Spanish: *Tenia yo que unos 5 o 6 meses, la verdad exactamente pues, no me acuerdo. Pero, pues que hacía yo aquí no había nada para mí, mi esposo ya se había venido. Yo estaba allí con mi mamá y mi papá. Y ya sabe uno que cuando se le viene el marido, Dios sabe cuándo puede regresarse. Y yo no quería vivir así, entonces le*

dije a mi mamá y papá, lo voy a seguir a ver cómo me va. Prefería ir así embarazada que pues luego tener que cruzar con mi niño, imagínese uno con niño, no, pues preferí así con mi pancita. Y mi viejo sabía quién me cruzara de confianza.

English: I was about 5 or 6 months [pregnant], honestly, I don't remember exactly. But there was nothing for me here, my husband had already left. I was there with my mom and dad. And we all already know that when your husband leaves, God knows when he will return. And I didn't want to live like that, so I told my mom and dad, I'm going to follow him and see how it goes. I preferred to be pregnant like this than then have to cross with my child, imagine with a child, no, I preferred that way with my belly. And my husband knew someone he trusted that could cross me.—Participant 10

Another interviewee (Participant 19) pointed out that he left because of the racism he kept encountering. This interviewee was from Puebla, Mexico, and part of an indigenous community. He continuously felt unwanted and belittled, something he says a lot of the indigenous communities still experience in Mexico. He survived making handmade products (painting, making clothes, figurines, etc.). However, it got to a point where this just wasn't enough and it was difficult to get employment elsewhere, so he decided to leave.

Participant 12 provided one of the most unique reasons that led to his leaving. This participant was actually well-off in his place of origin (Guadalajara, Jalisco). He was very forthcoming in noting that he honestly just came to California to visit San Diego and Los Angeles with a visa, but then to spite his father and prove that he could make it on his own, decided to stay.

Spanish: *… mire, pues, la verdad, sí, pues, sí, estábamos bien gracias a dios no nos faltaba nada, mi papa sí tenía su buen negocio, y pues, sí, como le dijo me vine de vacaciones. Y no se, aquí ya con mis primos dije pues yo puedo solo y pues, que me quedo. Todos me decían, 'no, guey, tu no la haces,' pero pues, mire aquí estoy. Estaba duro, pero pues me quedé.*

English: … well, look, the truth, yes, yes, we were fine, thank God we didn't lack anything, my dad did have a good business, and yes, as I just told you, I came on vacation. And I don't know, once I was here with my cousins, I said well, I can do it alone and well, I'll stay. Everyone told me no, you can't do it, but well, look here I am. It was hard, but I stayed.—Participant 12

Understanding the Dangers

As I spoke to interviewees about the reasons they decide to leave, I also inquired if at that time, while they were making these decisions or were preparing, they were aware of the very real risks they would face. The answers here actually varied quite a bit and for several reasons. For some individuals, leaving to the US as they got older was a

part of life that they expected, and they had various family members who had crossed. Some individuals said that their families did tell them that it would be hard, but that they had a family friend who was a *coyote* (a slang term used for those that help smuggle people across the border for payment; Fulginiti 2008), so they knew they would be safe and in good hands. Turns out, sometimes they were right, they did have a family friend that was a *coyote*, who helped them make the passage safely and without getting caught by border patrol. Other times, even when individuals were familiar or their families were familiar with the *coyote*, things would take a sour turn. For example, the *coyotes* would take their money and just never reach out to them again, sometimes leaving them stranded in border towns and having to seek out new *coyotes*. Participant 7 (Figure 7.2) explained his own experience:

> Spanish: *… No, no, no, ni me pregunte de ese hijo de su puta madre. Le juro que había pasado mis primos y mis tíos y no había pedo. Le pagábamos y el señor era de nuestro pueblo… si de allí mero… lo conocíamos. Y pues si se les da el avance y ya pues dice mírenme en tal lado, y uno se va y agarra su camino, y ya llega a la frontera. Y le vuelve a hablar para pues saber para donde darle no… y pues nada. Duramos yo y mis primos que serían como unos dos o tres días… y pues dijimos no ahora si este compadre nos vio la cara, así que tuvimos que buscarle pues a ver quién más nos llevara. Ya estábamos allí, y pues si ese dinero se pierde, aunque uno crea que es de confianza así es así pasa a veces*.
>
> English: … No, no, no, don't even ask me about that son of a bitch. I swear he had crossed my cousins and uncles and it had all been fine. We paid him and the man was from our town… yea, from there our town… We knew him. And well, you give him the advance and he says meet me in such and such a place, so you go and make your way and reach the border. So you call him again to see where you are supposed to meet him, and nothing. Me and my cousins were there for about two or three days… and we said, no, now this guy played us for fools so we had to look for someone else to see who else would take us. We were already there, and if that money is lost, even if you think you can trust the person, that's how it is, sometimes it happens.—Participant 7

Even if they know the individual who is helping them cross, there is always the constant stress of not knowing if the person is going to show, if they will steal their money, if they will get kidnapped, or if they will get detained by border patrol. Regardless of the situation there are always unknowns. The women had a very different perspective from the males that I interviewed. Their worries were not just about crossing safely and getting financially taken advantage of, there was a real worry of sexual assault. They were very

Figure 7.2. Interviewee Picking Lemons.

aware that women typically were sexually assaulted by not just *coyotes* but sometimes by other individuals. So before leaving they actually would develop various strategies they could use while crossing.

> Spanish: *La verdad a mí me tocó suerte, no la verdad que si teníamos pues ya ve mujeres del pueblo. Que…* [pauses] *pues no no…* [pauses].
>
> English: The truth is that I was lucky, no the truth that we did have well, you see, women from the village. What… [pauses] Well, no, no… [pauses].

At this point I told her she did not need to talk about it since I could see it was clearly impacting her to speak about, but she shook her head and said no she wanted to talk about it that's why she was here, so she continued:

> Spanish: *… a veces unas pues se hacían del baño para que pues no la quisieran y las dejaran en paz. Así que yo me fui sin bañar, no me bañe así sucia me fui. Y yo rezaba, y gracias a nuestro señor nada me paso. Pero si está feo ver lo que vi, porque aunque no la agarren a uno… si se ve cosas…fuertes. Y pues si te metes como dicen a veces sales crucificada así que calladita y cruce y ya… ya…*
>
> English: … Sometimes some of them would defecate themselves so that they wouldn't be wanted, and they would be left alone. So, I left without bathing, I didn't bathe, that's how I left, dirty. And I prayed and thanks to God nothing happened to me. But it's ugly to see what I saw, because even if they don't grab you… you see things… hard things. And well, if you get involved, as they say, sometimes you get crucified, so I stayed quiet and crossed and that's it… yea… yea.

I followed up with letting her know once again we did not have to talk about this anymore and she shook her head and agreed to no longer talk about the subject. The reality was none of these interviewees had an "easy" crossing. They all knew well before hand the dangers that were ahead of them. Sometimes they weren't able to foresee just how hard the crossing was going to be. The knowledge that there was danger was always there, but one participant clearly states,

> Spanish: *Iré aquí o allá, nos íbamos a morir. Siempre viene la muerte por uno, pero el miedo, no ese si lo agarra a uno fuerte, el miedo y el hambre, así que si me iba a morir por mínimo que haiga sido por algo que es más de lo que se puede decir por muchos*.
>
> English: Look here or there, we were going to die. Death always comes for you, but fear, now that grabs you hard, fear and hunger, so if I am going to die at least it was for something that is more than what can be said by many.—Participant 19

Experiences Crossing

As interviewees spoke about their experiences and how they decided to cross the US/Mexico border there was the inevitable conversation of experiences with border patrol and *coyotes* (traffickers), as well as a discussion on how many times they had crossed. In many cases participants were detained by border control and had to attempt the crossing various times before doing so successfully. In this same vein interviewees also spoke about how most of the time they would go with the help of *coyotes*.

Of the 30 participants interviewed 23 (77%) noted that they had at some point been detained by border patrol (Table 7.4). Experiences varied, but for most of those who had been detained they described this experience as being taken by border patrol, incarcerated, and then dropped off in border cities (i.e., Tijuana or Mexicali). Sometimes they would get dropped off in locations far from the border, but still within Mexico. They really did not have much of a choice when it came to this, when they were detained, they were basically dropped off wherever border patrol deemed appropriate. Another thing that was interesting was the actual experience of being detained, and what happened between detainment and being "dropped off" varied with each participant. However, many times interviewees brushed off their experiences of being detained by border patrol, it seemed more of an inconvenience to them that anything else. While I did want to know more about these experiences if they decided to keep on with the conversation and go onto another topic, I continued and did not force them to speak about it.

Table 7.4. Interviewees Detained by Border Patrol versus Those That Were Not.

DETAINED	NO. OF INDIVIDUALS
No	7
Yes	23
Total	**30**

Here I want to highlight the various experiences they had while crossing and being detained by border patrol, one of the interviewees noted:

> Spanish: *No la verdad que a veces uno rezábamos para que viniera la migra, no estaba difícil, así que era la migra o pues allí quedábamos, pero pues otra pues si no corríamos y pues no unos del grupo si agravan y pues los que corríamos más pues si nos íbamos*.
>
> English: No, the truth is that sometimes you would pray for border patrol (i.e., *migra*) to come, it was difficult, so it was get caught by border patrol or we stayed there, but then other times, well, we would run when we saw

them, if we didn't run, and well, some of the group did get caught so we ran and those of us that could were able to run away.—Participant 29

While for the most part US Border Patrol is seen as the enemy, as noted above, sometimes the situation was so dire that interviewees would pray and hope to get caught, because then they knew they would survive. Not only would they survive but they would get a warm meal and a place to stay, that place may have been a jail, but at least they would be fed and rested before they tried to cross again. It goes without saying that this topic in particular was very difficult for interviewees to talk about, so if they did not want to speak about it, they were not pushed to, but the space was given, if they wanted it to delve more into this experience. Table 7.5 demonstrates this hesitance, at times, to speak about their crossings. The table notes the years interviewees crossed, with the caveat that sometimes interviewees were open to speaking about their various crossings, while others were not. This means participants may have in fact crossed more times, but it was not noted on this table, because they just simply did not want to speak about it. Again, to respect their privacy and not have them relieve unnecessary trauma, this topic was not pushed.

Table 7.5. Participant Border Crossing by Year.

Dates Crossed	No. of Individuals
2004	2
2006	2
2007	1
2008	2
2009	2
2012	6
2014	4
2015	1
2016	1
2017	2
2019	1
2021	2
2022	1
2003, 2005	1
2005, 2012	1
2005, 2007, 2010	1
Total	**30**

It seemed that the same individual could have very different experiences when crossing, such an experience was noted by Participant 13. Participant 13 was one of the interviewees that requested not to be audio recorded so instead of quoting him I will briefly review his different experiences while crossing. The interviewee mentioned that he tried to cross about four times (that he could remember, but only offered one official crossing date), he noted that he started to cross in 2016 and that every time border patrol

caught him, he would turn right around and try again. Sometimes this meant crossing within a couple of weeks after being detained or attempting to cross the very next day. As he explained this, he felt it important to tell me that no one *wants* to come here, meaning the US, that they do it because they have to. He explained that no one would ever want to leave their home, family, and friends, that this is done out of necessity.

After he mentioned this, he then went into the various crossings he did and his experiences. Of note to him were his two experiences going through the Arizona desert and two crossings in Tijuana where he mentioned quite literally jumping over the fence. He noted that sometimes they would cross with a group of 70 people, one time he got split up from his group and got lost (later detained by border patrol), a third time he crossed with two others, and another with five people. He mentioned that something people don't often think about is how easy it can be to get lost, he noted that after several hours everything starts looking the same, so you could for all intents and purposes be walking in circles if you do not know where to go. This leads many participants to resort to the use of a *coyote*, which will be noted later in this chapter. After about 30 minutes of the interview, the interviewee seemed to become more comfortable and mentioned he wanted to tell me something. So, I mentioned he could of course talk about whatever he wanted. He mentioned one crossing that was painful for him and made him really realize how desperate he was to get here (the US). He mentioned one of the *coyotes* getting him over through a small canal (the opening of a drainage canal). He said it was fenced off and the *coyote* told him there was zero chance he could get caught because border patrol never looked there. He tried going in and realized he was too big to fit, so he said no that he would not go in. The *coyote* said he had to or he could stay by himself, so out of fear he tried his best to fit into this small canal. The *coyote* rubbed motor oil all over the interviewee's body for him to slip into the canal faster. He said he tried over and over but just couldn't fit, so after a while he told the *coyote* that it was fine, he could leave, and he would try another way. He tried to find another way but was disoriented and eventually was apprehended by border patrol who was shocked to find him in the state he was in, which was covered in motor oil with various open wounds, caused by him attempting to fit in the canal.

During the interview, he looked at me and mentioned that fear is powerful and that is something you never forget. It was the first time he mentioned, he realized he was willing to die to cross. When I asked him why, he mentioned that we are all going to die one way or another, might as well make it worth something, which is a sentiment that had also been described by another interviewee. For this interviewee his apprehension by border patrol actually saved his life, because after being lathered with motor oil and having various scrapes and bruises he was in pretty bad shape. Border patrol was able to get him to clinic to get cleaned up and address his wounds. After he had healed, he was of course taken back to Mexico, however, this time he waited several weeks before he attempted to cross

again because of his physical state. Another interviewee told me about their crossing as well, but this time border patrol filled the role of someone to run away from.

> Spanish: *Éramos como unos 10 y pues íbamos de noche y me acuerdo que decía [coyote] si ven a la migra no corran, si corren van a saber dónde andamos quédense tranquilos. Pero cuando llego la migra, pues tiene luces y esa vez llevaban perros, y los perros si te encuentran porque te encuentran. No nos echamos todos a correr en putiza. Pues como éramos diez la migra no sabía ni para donde ir, y el coyote decía, 'escóndanse escóndanse' pero uno en ese momento lo que quiere es correr*.
>
> English: There were about 10 of us and we went at night, and I remember him [*coyote*] saying, if you see the border patrol, don't run, if you run, they will know where we are, stay calm. But when border patrol arrived, they had lights and that time they also had the dogs with them, and the dogs they will for sure find you because… they found you. We all just started running. Well, since there were ten of us, border patrol didn't even know where to go, and the *coyote* said, 'hide, hide,' but at that moment what you want is to run.—Participant 3

When I asked the interviewee what happened after they ran away, he mentioned that some people in the group got caught, but again it was 10 of them, so border control ended up apprehending those that were slower. As for him and his cousin (who he was travelling with) he said they did not get caught. However, since it was just them two alone, they ended up getting lost until a day later they ended up bumping into another group that was crossing and ended up joining them. Once they reached their destination across the border, they asked their family members to pay this new *coyote* who had crossed them.

Another individual explained how the *coyote* they used was actually someone that they knew from their hometown,

> Spanish: *Mire pues en mi pueblo todos no conocíamos, así que pues cuando uno se iba ir era porque sabía quien lo podía llevar, así que no juntábamos unos 5–6 allí del pueblo para irnos juntos porque uno ya conocía el coyote, y el mismo ya había pasado gente de mi pueblo. Y uno tiene necesidad y si ay alguien que nos ayude y íbamos en bola pues se siente uno más seguro*.
>
> English: Look, in my town we all know each other, so when someone was going to leave it was because they knew who could take them, so we would get together around 5–6 people from the town to go together because one of them already knew the *coyote*, and the *coyote* had already helped people from our town pass. And well one has a need and if there is someone to help us and we go together, then one feels safer.—Participant 17

The relationship with *coyotes* is complex to say the least: a total of 26 participant indicated that they used *coyotes*. A couple of participants noted specific experiences with these traffickers; those will be discussed below (Table 7.6). A more in depth analysis into this world surrounding *coyotes* was actually described in De León's new book *Soldiers and Kings* (2024). Though not asked specifically interviewees would sometimes share how much a *coyote* would cost them and this actually ranged anywhere from $5,000-25,000. It depended on how, where, and when you wanted to cross. Twenty years ago, the prices were a lot lower and now they are obviously substantially more according to interviewees. Some interviewees noted that the range sometimes depended on how hard it was to get past border patrol. Interviewees sometimes saw interactions between border patrol and *coyotes*. Sometimes, border patrol was in cahoots with the *coyotes* or the *coyotes* knew when border patrol was in certain areas, making crossing pretty easy. This information was relayed by several interviewees. Other times crossing was a lot more dangerous because border patrol was literally everywhere and they had to take very specific and dangerous corridors, which would raise the price when crossing. Payment was not always expected up front, sometimes you paid half before you crossed and the other half after. Sometimes family members would deal with the money transaction with the *coyote*, so the person crossing never exchange money with the *coyote* themselves.

Table 7.6. Guide Use among Participants.

Coyote or Guide	No. of Individuals
Yes	26
Yes; ended up being a *coyote* himself	1
Yes; heavy drug use to cope	1
Yes; "*Indigena*" (Indigenous)	1
Yes; sex trafficking	1
Total	**30**

However, here I do want to highlight our four outliers that wanted to add additional information on their experience with the traffickers. One mentioned that they crossed so often, that they realized they could cross on their own, so they decided to become a *coyote*. However, instead of making it a full-time business what he would do is every time HE needed to cross, he would recruit people to go with him so he could serve as their guide since he knew the lay of the land. One of the female interviewees (Participant 23) only briefly discussed her experience with various *coyotes*. I could tell she was very uncomfortable so I did not push, but what she did note was that those experiences were so hard on her that the only way she could get past what happened was using drugs. This interviewee also requested not to be interviewed but did consent to me taking notes during the interview.

As I interviewed, she was shaking her legs back and forth and I noticed her appearance was a bit unkempt. As I continued speaking to her, she was open about the fact that she depended on alcohol in order to calm her nerves. She mentioned there were a lot of things she needed to forget and that it helped her. Prior to crossing the US/Mexico border and engaging with a *coyote* she noted she never even drank beer. To this day she mentioned she has issues with substance abuse. Not wanting to press her further on an issue that clearly upset her I continued to other parts of the interview.

Another interviewee mentioned that their *coyote* was "*un indio del cerro*" (an indigenous individual that lived in the mountains on the Mexican side of the border. To be clear the interviewee identified this individual as indigenous NOT Native American so the verbiage here is important to keep, because it illustrates a very clear differentiation between a Native American as they are described in the US versus how they are called, acknowledged, and described in the country of Mexico. This interviewee (Participant 6) did not agree to be audio recorded, but again gave consent to take notes. During our interviewee he explained that he felt that the media tended to portray traffickers or *coyotes* as these powerful individuals and sometimes even drug lords, but again in his case it was someone who just familiar with the land. He kept mentioning "*era un indio*" (he was an indigenous man) as if he had a hard time believing it himself. He said this man just offered to take him for a fee and he did just that, he took him across the border safely with no issues. Participant 6 mentioned that this person had lived on his property for years that was near the border, so he knew where border patrol would go and would not go and at what times. So, to make a quick buck he offered to take him across, and he did. I asked if he ever contacted that man again and he said no, but it was just out of pure coincidence that he met the man and was very grateful for it.

The last individual that I want to highlight is Participant 21. Participant 21 was a young man under the age of 18 when he first crossed. He did allow me to audio record him, but I have chosen not to use a transcript of his recording, instead I will summarize the interview. I have chosen to not use transcript quotes as the topic that was discussed revolves around sex trafficking, and it was very clear that speaking of this caused him a lot of pain. I do not find it necessary to go into all the gruesome details of what he experienced. Instead, I want to highlight and summarize some of these points in order to illustrate a larger issue at hand. That men can also be victims of sexual trafficking, that women can be the traffickers, and that trafficking can not only go on for years, but victims can have contact with their families as this happens.

This individual crossed when he was 13 years old and his uncle, who he was also crossing with said that he would hold on to the money he had that he would be using to pay the *coyote*. He mentioned everything went fine, he hid in someone's trunk and crossed right over, the problems happened once the trunk was open. He mentioned that a woman opened the trunk and let him know he had crossed she then proceeded to ask him for

payment. Needless to say he was very confused because he had assumed that his uncle had given her the money. The *coyote* (who was a woman) said she had never received payment. The woman was clearly frustrated and mentioned she was tired of people doing this to her. So, she said he would have to stay with her to pay off the debt. For approximately a year, this interviewee lived with this much older woman and was forced to do what she asked of him. This included having sexual relations with her, in groups, with others, and helping her in illegal activities. Throughout this specific interview, I mentioned various times that we could stop or that he did not have to go into detail with certain topics. He would often pause to wipe tears, but said he wanted to continue, he mentioned for him this was like therapy. He finally could talk about it without feeling ashamed of himself, he mentioned several times that he was just a boy that none of this is his fault, but he wants people to know that this can happen to anyone. After about a year he said he had developed a friendly relationship with her, but ultimately, she let him go because he had paid off his debt. As we ended our conversation, I made sure to let him know that resources were available to him if he ever needed to speak with someone about his experience).

Life in the United States

Life in the US once participants made it across was different for everyone, but I did want to highlight here the experience of Participant 21 given all that he had overcome. I started by asking him how life was in the US and if it was worth it to him. He first answered with a smile and told me it was worth absolutely everything. He was able to help his family back home and establish a family here and even get citizenship. He mentioned that he would never have had this life back home, so while yes he certainly suffered, he said it was worth it. He spoke with pride mentioning that because he came to the US his siblings had been able to even go to a private school and eventually establish their own businesses. He acknowledged home would always be in Mexico, but that his new home was here and that both places provided "good and bad things" (Figure 7.3).

Like with anything else individuals had good and bad experiences in the US. I asked interviewees what life was like here, if they were able to access healthcare and if they regretted coming, and the answers varied widely. For example, Participant 7, who did not want me to audio record him, mentioned that he actually did not like it here at all. His plan was to save enough money and then leave. He said this was no place to live. He felt that everything here was just "go, go, go" and no one ever really enjoyed themselves or took breaks. He mentioned it was fine here to live for a couple of years and save up, but he hated that people here spend their lives just working and looking at a clock, there was no time for leisure or family time and that killed him. So, he knew he just needed to put his head down work, save enough money and leave. Participant 5 mentioned he had been here for less than a year and was very stressed because he ended up getting COVID-19 soon after he arrived, he explains,

Figure 7.3. Research Participant Pruning a Fruit Tree.

Spanish: *Haga de cuenta que pues ya ve pues… pues… pues… pues sí, como le dijo… pues me vine, y no como al mes me sentí morir. No podía respirar y pues… pues… sí, como le digo pues mi primo me llevó allí a la… a la… pues… a la clínica. Y sí, me internaron por como dos semanas…*

English: Well imagine you see… well… well… well, yes, as I said… Well, I came, and I felt like I was dying about a month later. I couldn't breathe and well… well… yes, as I said, my cousin took me there to the… to the… well… to the clinic. And if I was hospitalized for about two weeks…—Participant 5

I followed this up by asking how he felt about the healthcare situation here and if he felt happy with the care he received. He sighed as he responded,

Spanish: *Pues, sí y no, yo se que allá pues no hay los recursos pues ya ve no… y pues sí, me trataron bien y sí, tenían alguien que me traducía todo en Español. Pero pues ya ve uno no tiene seguranza y pues después llego la cuenta como de $10,000. Y uno como lo pago si uno viene para chingarle trabajando y luego tener que pagar eso… pues la verdad pues [riéndose] me hubieran dejado allí en la mesa*.

English: Well, yes and no, I know that there aren't the resources there [country of origin], well, you see, no… and they treated me well and they had someone who translated everything for me in Spanish. But you see, I don't have insurance, and then the bill came in, about $10,000. And how do I pay for it if you come here to work and then have to pay that… Well, the truth is that [laughs] they would have left me there at the table.—Participant 5

The need to pay for access to medical care in the US while undocumented was a big burden to bear, however, many interviewees did express that they were offered a translator, and they never felt a fear of being deported when at a medical facility. Experiences with medical ranged from poor to great and this largely depended on whether an individual had private insurance or not. Many times, going to the doctor here in the US was so cost prohibited that, if possible, interviewees would just save money and get medical care (including dental and optometry services) back home and just pay cash.

Not all interviewees had a lot to say in regard to medical care, it seemed to just be a service they were provided, but nothing noteworthy. Instead, some individuals were more excited to speak about their experiences since crossing over, which for some included going back and forth between their country of origin. Something interesting that does happen and was noted with these interviewees is that when you cross the US/Mexico border and stay here for some time, that doesn't mean you stay here forever. In fact, several interviewees, expressed that in their younger years they would cross and stay for about three-to-six months to work, then go back to their homes (in Mexico) and the next year do it all over again (i.e., crossing the US/Mexico border). One of the

participants, Participant 9, mentioned that when he was younger it was easier to do that. He knew a *coyote* he trusted who always crossed him over, no problem, and for a reasonable price. So this participant explained he would just go back and forth and did that for about five years until he decided to stay here for good and try to get citizenship. Another individual noted that coming here was the best decision of his life,

> Spanish: *Uno si extraña su gente la verdad, México es un lugar alegre, tiene uno a su familia allá. Si no hay mucho dinero y a veces sufre uno, pero la vida en verdad es muy bonita allá. Pero, el gran, PERO es que, aunque uno ame a su país las cosas si están duras allá, uno sufre, también aquí pues la verdad. Pero aquí por lo menos ay esa oportunidad de sobresalir. Algo que yo quería era que mis hijos fueran nacidos aquí, por la verdad que si ser ciudadano de aquí son unas grandes oportunidades. Gracias a dios tengo mis papeles y voy y vengo, pero ya no… mi vida es aquí. Voy veo a mi familia, pero no de aquí soy yo ya y pues con orgullo de los dos lados.*
>
> English: You do miss your people, the truth is, Mexico is a happy place, you have your family there. There isn't a lot of money and sometimes you suffer, but life is really very nice there. But the big BUT is that, even if you love your country, things are hard there, you suffer, I mean you also suffer here. But here, at least, is that you have opportunity. Something I wanted was for my children to be born here, because the truth is that being a citizen here is a great opportunity. Thank God I have my papers and I come and go, but not anymore… my life is here. I go and see my family, but I'm from here now, and I'm proud of both sides.—Participant 9

An interesting trend that was brought up with every interviewee when speaking about how they navigated life in the US and back in their country of origin was about real estate and money (Table 7.7). It so happens that quite a few interviewees either own property, land, or send money back home. The table below notes "*casita*" (little house) and "*terreno*" (plot of land) in Spanish because every single person actually used these words, which I thought was interesting, so I decided to record it here. It seemed that individuals were primarily interested in having a home back in their country of origin or at the very least a plot of land they could later build a home on or use for farming or another enterprise. Money sent and what it was used for was a bit more complicated. Some individuals would simply send money back home for their parents or siblings, others would send money home for their families in addition to sending money to build a home, upkeep the home, or as a savings to later purchase a home or land.

Table 7.7. Property Ownership and Remittance among Participants.

Owns Property or Sends Money Home	No. of Individuals
Yes, *casita* and *terreno*	10
Yes, *casita* and a *ranchito*	1
Yes, *casita* and sends money for upkeep.	1
No *casita* or money sent home	4
No *casita* but sends money back home	3
No *casita* but still wants a *casita* and sends money back home	1
No *casita* or money sent, just visits family	1
No *casita* sending money now to by *terreno* first	2
No, still saving up	1
Noted life is here, but sends money to family	3
Noted life is here and doesn't send money back	3
Total	**30**

Another interesting note on these *casitas* was that the purpose for acquiring them was not necessarily for them to go live in permanently (though this was the thought for a few interviewees), more so these *casitas* were thought of as vacation homes. So, the plan here was to buy them and when they visited to stay there, or to have family members live there or rent out the *casitas* until they came down to visit. Only three individuals noted that they did not send money back home because they felt their life was here, so they saw no need to send money.

Life in the US was not always what interviewees expected it to be, but they all seemed to agree and acknowledge the fact that coming to the US was the best opportunity they had to help their families (Figure 7.4).

COLIBRÍ CENTER ANONYMIZED DATA

The Colibrí Center generously shared anonymized demographic data for 3,031 individuals. The Colibrí Center first started gathering information in 2006, so the data acquired is representative of when Colibrí first began collecting missing migrant data. In 2006, the initiative to collect this data was known as the Missing Migrant Project, or Proyecto Migrante Desaparecido. The anonymized data represented here is from individuals who reported family members, friends, acquaintances, or colleagues missing. While individuals could start reporting individuals missing from 2006–2019, sometimes the information for a missing person could be as early as 1973. For example, someone could call in 2010 and report their loved one missing, who was known to have crossed the US/Mexico border in 1990. Meaning that the year or time someone reports a missing person does not always indicate the time when the individual was actually last seen, something which will be explained in more detail below.

Figure 7.4. Field Working Crew and Interviewees Eating Lunch during their Break.

Background on Colibrí

Colibrí offers services to families who need help finding their loved ones who decided to cross the border who they have not heard of ever since. For example, if you have a family member that said they were going to come to the US, but never heard from them again, that is when you would reach out to an NGO like Colibrí. Since 2006 the main goal of Colibrí is to reunite individuals who have gone missing while attempting to cross the US/Mexico border. Sometimes this is in helping them find the remains of their loved ones and other times it means attempting to find loved ones who are in fact alive but did not have the means to communicate earlier. One of the Colibrí offices is housed within PCOME, which aids in the communication and transfer of information between the two agencies. An ideal scenario of how this communication would occur is, for example, a family member reports someone missing. They let Colibrí know demographic information of the missing individual, including information on previous health or individual identity markers (such as previous fractures, tattoos). In a fictious scenario, let's say that PCOME received remains of an individual who matches this description. This allows Colibrí and PCOME to have a discussion regarding information they both have of that individual. If they have a sense that they might be discussing the same individual, then Colibrí would move forward by contacting the family to have a DNA comparison done in hopes of positively identifying that individual as their missing family member. Of course, this does not always work in this idealized way, but this serves to illustrate the point of the collaboration between Colibrí and PCOME. The flow of information between these two groups is quite novel and has served as a great example of how government agencies and NGOs can work in unison to help in this arena.

Colibrí's main source of data is through communication with family members, friends, acquaintances, or colleagues of the missing individuals, as previously discussed. For instance, Colibrí has a phone number and an online form to report family members. Colibrí utilizes a set of standard questions they would ask the individual in order to get as complete a profile of this missing individual as possible. For instance, they start by asking basic demographic information including the individuals age, sex, nationality, and name. They then utilize follow-up questions regarding the last thing they say the individual wearing, what they were carrying with them, the last time the individual had contact with them or anyone, the last location the individual was seen, and what the individuals' plans were (if they knew this information). An additional source of information that is requested is asked as a means to serve as a comparison point more specifically with PCOME skeletal data. For example, they would ask if the missing individual had any tattoos, dental records, fractures, scars, birthmarks and so forth. Again, this can be used as information for PCOME that way if individuals come in with any of these matching descriptions that individual can be flagged and further investigated. What is provided here is a more summarized version of these findings. This

is because both Colibrí and myself want to respect the privacy of these individuals and more, so these individuals did not consent to their private data being shared. The anonymized data that is presented here is merely a highlight of this information and does not provide any identifiable or personal information of the individuals who reported the missing or the missing themselves.

The data set generously provided by Colibrí notes the case status meaning if person was ever found or is still missing, state of case meaning if the intake was completed, last seen alive date of individual (LSA), gender, calculated age, age range, nationality, and location were last seen alive (Table 7.8).

Table 7.8. List of Anonymized Data Categories Provided by Colibrí.

ANONYMIZED DATA
Colibrí case number
Case status
State of case
Sex
Age range
calculated age
Nationality
LSA Date
LSA Location

Since 2006 a total of 3,031 individuals have been reported missing and are placed into three general categories when noting the state of their case. This includes Complete, Incomplete, and Lost Contact. "Complete" that means that they were able to have a full intake of the individual who was missing. "Incomplete" means they have various missing data sources, which can include missing dental records, missing age, missing LSA, etc. Lastly, "Lost Contact" indicates that the individual who originally called to report the person missing has never returned Colibrí's phone calls or called back to finish the missing persons report. As a point of clarification, an LSA date is the point in time where people lost contact with individuals. However, since the data set is from Colibrí, their term of, "Last Seen Alive" or LSA will be kept here. For example, someone would call and say the last time they had contact with an individual was in 2010, so their LSA would be 2010. As an aside, sometimes data is missing but this is not because it is "Incomplete" but because the caller simply did not know the information so could not provide it. So there sometimes might be information missing, but Colibrí still notes this missing person report as complete, because the individual who called gave all the information that they could.

Given this, only anonymized data categorized as "Complete" were used in this sample since it provides the most complete data set leading to a total of 1,688. Within this group there are also individuals who are noted as "Found" and "Missing" there was no distinction here for this data compilation since the main objective was to note basic

demographic information. Even if individuals were found the anonymized data, again, provides no compromising information on who this individual is or may have been. Within this data set of 1,688 individuals there are also dates noted of when individuals were LSA these range from 1973–2019. Given that this research focuses on individuals deceased within the last 20 years (1999–2019) and interviewing individuals who crossed within the last 20 years it was important to also have this data set conform to these time constraints. When accounting for individuals who went missing within the last 20 years within this data group and having complete intakes from Colibrí we have a new data set of 1,636. Also included within this data set are individuals who were reported missing but now LSA date was given. Since we cannot confidently exclude them based on LSA date, they were still included within this data set. As a reminder, these results are representative of those individuals being reported as missing, *not* of individuals seen deceased along the border which was noted in the skeletal.

Status of Case

Status of cases are noted here; however, state of case is not. As a reminder, state of case refers to whether or not a "complete" intake was taken, and since we are *only* using individuals who have been noted as complete, this is not needed to review here. However, what is important to note is whether or not an individual was eventually found or continues to be missing (Figure 7.5). Of the 1,637 individuals, 20 percent have been found (alive and deceased) and 80 percent are noted as still missing as of 2019.

Age(s)

Within this intake data of a missing person's report, one of the initial questions asked was the age of the missing person. This is described as "Calculated Age," which means that when an intake happened the individuals who were reporting the missing person were able to give an exact or estimated age (Figure 7.6). It should be added here again that many times even if family members were reporting missing loved ones, they were not always positive about that individual's age. Sometimes they really did not know how old the individual was or did not want to provide the information in which case age was noted as "Not Available." Adding to this layer of confusion, sometimes the individual will have been missing for so long that they had to guess how old they would be now. If the person making the report still felt uncomfortable deciding on an age, they were then prompted to offer up a potential age range that the individual may have been. For example, some would say this person was around 48 to 49; someone else might say the individual was in their 20s. The table below notes the various ages that were reported of individuals who had gone missing when crossing the US/Mexico border. On average it appears we are typically seeing individuals in their 20–40s go missing. As a reminder we do have a significant number of individuals in this data set noting age as Not Available.

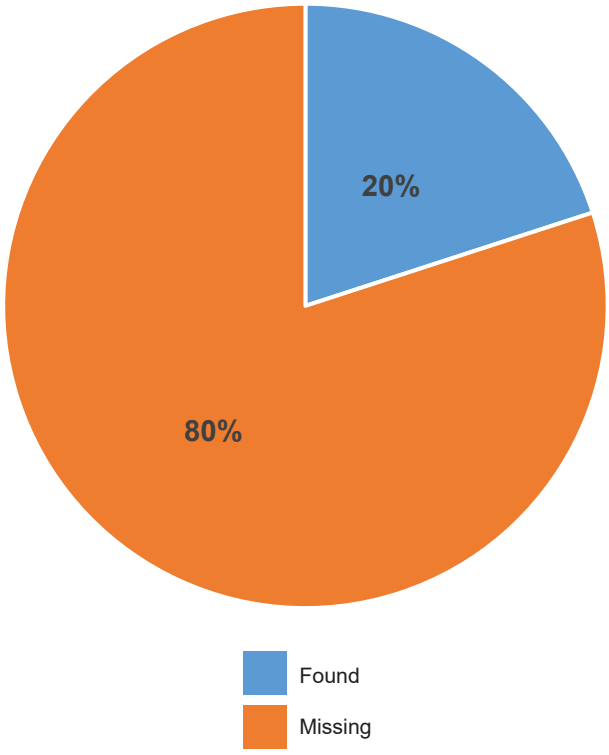

Figure 7.5. Prevalence Rates of Individuals in Sample Noted as Found or Missing.

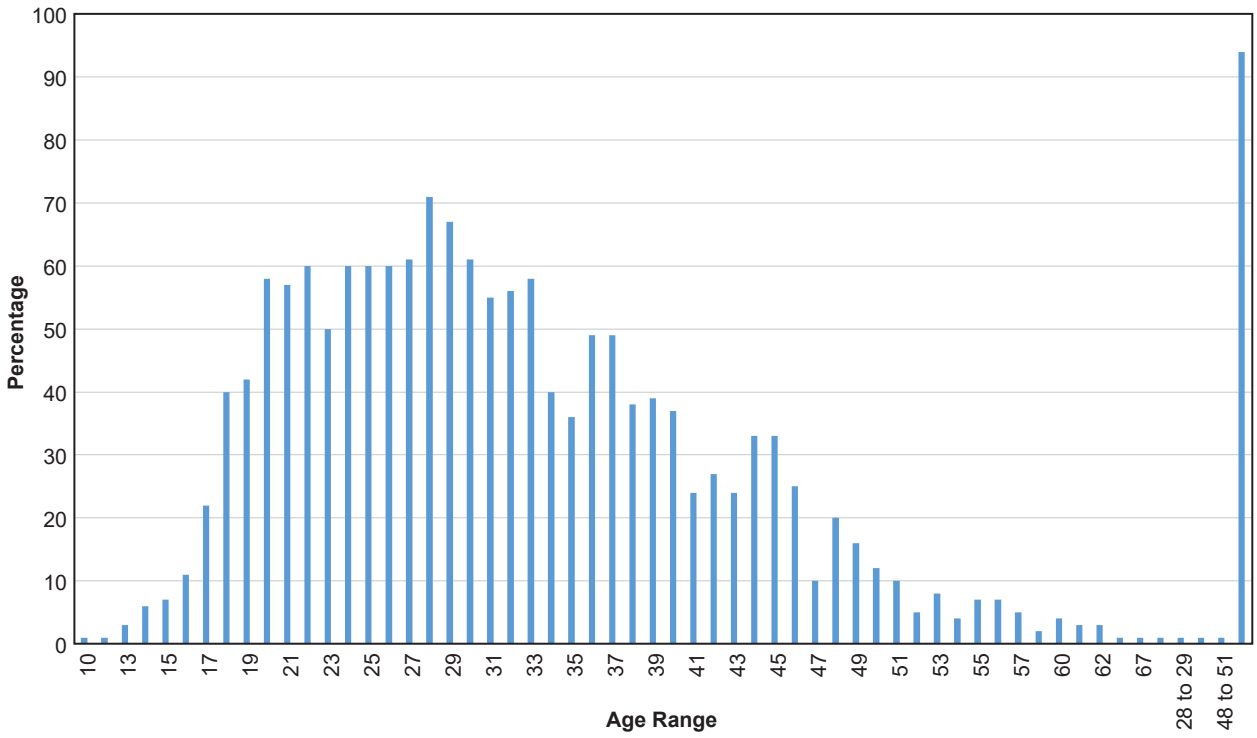

Figure 7.6. Calculated Ages of Individuals Reported as Missing from Colibrí Data.

Gender

As individuals were reported missing one of the questions was regarding the gender of the missing individual. Again, this should not be confused with biological sex, within this study there is a distinction between the two. The data below represents how those who reported the individuals missing identified them, not necessarily how the missing individuals identified themselves. When intake was conducted all that was asked was what the missing persons gender was there was no specifics or differentiation in between gender and sex. So, while skeletal data determines sex and in the interviews we get at gender, here the lines are a bit blurred. A total of 88 percent of individuals were described as male and a smaller 12 percent as female (Figure 7.7).

Nationality

When intake information was gathered from these individuals, a very important demographic question that was asked was in regard to nationality. Knowing someone's nationality certainly helps in narrowing down potential crossing corridors as well as skeletal identification. Of the 1,637 individuals, a majority (89%, highlighted in Table 7.9) hailed from Mexico, Guatemala, and Honduras, with individuals from El Salvador coming at a smaller fourth.

Table 7.9. Nationality of Individuals Reported Missing.

NATIONALITY	NO. OF INDIVIDUALS
American	7
Brazilian	3
Columbian	3
Costa Rican	2
Dominican	3
Ecuadoran	28
Guatemalan	288
Honduran	123
Mexican	1,049
Nicaraguan	14
Not Available	13
Peruvian	7
Salvadoran	97
Total	**1,637**

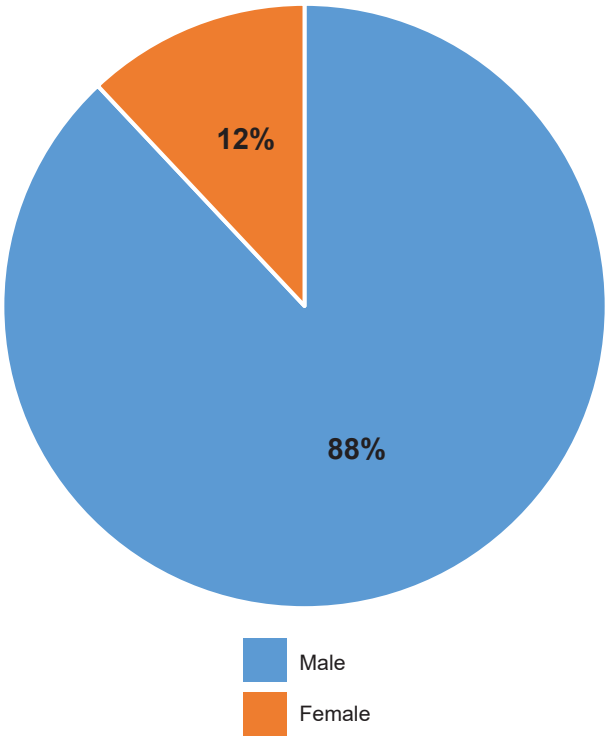

Figure 7.7. Gender Prevalence Rates within the Sample.

LSA (Lost Contact) Date

The graph below notes trends of LSA dates regarding the 1,637 individuals (Figure 7.8). In the years 2010 through 2016 there appears to be a significant uptick in individuals who are reported missing (62%) with a majority of them noted missing in 2016. As a reminder data was acquired starting in 2006 so this might account for the lower prevalence rates of individuals' LSA dates from 1999–2005. As word about Colibrí services became more well-known this may also very well account for why we have more individuals reporting missing people. Either way we cannot know for certain, but we are able to note that this rise in missing persons report within Colibrí. A small percentage of individuals skews these prevalence rates—those noted as "Not Available." This is the group where LSA dates were not available; however, it was still important to note them within this sample since they do provide other demographic information.

Demographic Information

The ethnographies and Colibrí anonymized data presented several interesting trends and overlaps. These trends and overlaps also occur with PCOME skeletal data and will be discussed in Chapter 9. Here, I would like to focus primarily on the results illustrated by the data in the interviews and Colibrí. The first area to address is age, as previously described in the individuals interviewed were not asked their age. Age with Colibrí illustrated an age range of those that went missing primarily of the age ranges of 20–40 years old. So, while interesting this data set could not be compared, but will be addressed as it compares to skeletal data in Chapter 9.

The second data point to address is the biological sex/gender. During interviews, participants were asked how they identified by asking if they wanted to be referred to using *masculino* (male) or *femenino* (female) pronouns. There was no real in depth conversation about the meaning behind biological sex and gender, mostly because it was not vital to this project that they express the inner workings of how they view these two and also it seemed an invasive question that again, was not necessary to engage in. What was important here was for them to just identify how they wanted to be spoken to. With Colibrí data individuals who reported the missing were asked the gender THEY identified the individual with, so the individual themselves did not have much input. Either way in both instances we still males represent the majority of that population sample. In the interviews 86 percent of individuals described themselves as male and in the Colibrí data 88 percent of those reported missing was described as males. As a reminder the age range of 20–40-year olds with Colibrí data primarily describes the males in the group (88%).

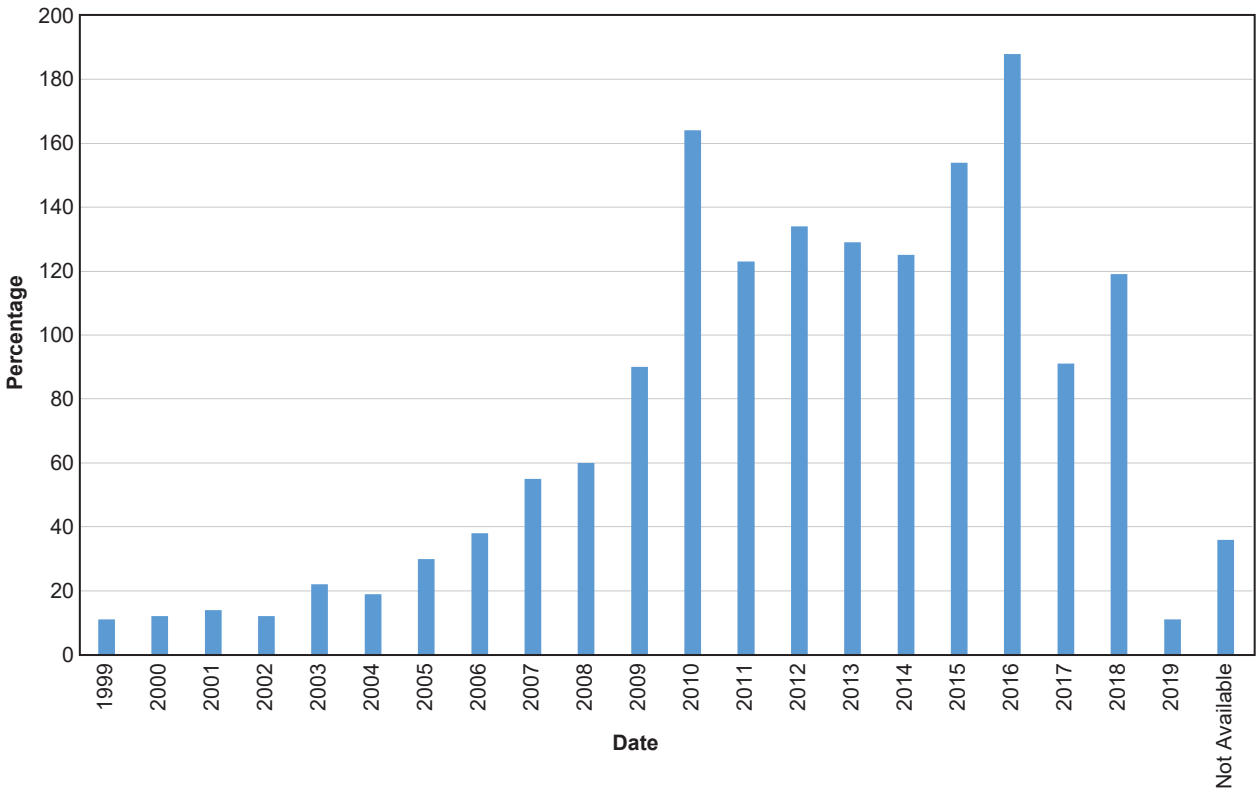

Figure 7.8. Prevalence Rates of Individual LSA Dates.

In previous chapters I addressed the various issues and concerns regarding the use of ancestry in skeletal data. However, here individuals were able to use their own voice and describe their own places of origin, or alternatively in the Colibrí data have someone close to them identify where they were from. This is why I am comfortable sharing this "ancestry" or rather nationality data here, because individuals were able to speak on their own behalf or have someone close to them do so, it was not based on the researcher. In the interviews a majority of individuals (23%) identified as being from Chiapas, Mexico. Again, this is a much smaller sample than the Colibrí data but here we are not only able to see the country of origin, but more specifically the town or city that they associate their heritage to. In Colibrí data we see a majority of individuals reported missing being from Mexico (64%), so this tends to coincide what we are also seeing with interview data which is individuals primarily from Mexico. However, with this information in mind there are several caveats that need to be made regarding interviews. The first is that when I interviewed individuals, I interviewed them from only two very specific locations (Fresno, CA and Vallejo, CA), so I had a limited sample to work with. Additionally, accessibility to interviews hinged on previous participants spreading the word of what I was doing and my research. Meaning, I would typically end up interviewing individuals familiar with each other be it because they live together, they were from the same town, or worked together. Either way these individuals were tied in some way be they family members or friends, which would certainly skew the data leading to a very specific location of where these interviewees were from. Another factor to take into account is that while in interview data various cities and states were noted, all individuals still hailed from Mexico, the information here was just more specific regarding location, so overall this still coincides with what we see with the Colibrí data.

Connections to Home

Another interesting development that occurred with interviews was the acknowledgement and the sense of home and belonging. While this concept is certainly not new (Camp 2013; Rosaldo 1994) it was interesting to listen how they conceptualized this notion. Coming to the US symbolized a new beginning in many respects but did not necessarily equate to a new home. It seemed there was a constant battle within themselves about acknowledging or accepting that the US could be their new home. For many interviewees a connection needed to be present to their home country as a form of continued identity even as their sense of self and identities changed while in the US regardless of time. A majority of interviewees (33%) described having a home and a plot of land back in their home country even while living in the US. These homes were either used as rentals or as homes where they stayed when they visited family.

The land that they would purchase seemed to be for the most part left vacant and just a space to be held for future endeavors whether this be to open businesses or for

farming. For the most part interviewees seemed to accept that at the very least their "working years" would be spent in the US, but the end goal was to move back home at some point or to have the option once they retire to have a home to stay at for part of the year. They all acknowledged that while the US did offer financial opportunities that would have never been available to them, they still felt strong loyalties to their homes so in purchasing a physical home this was a materialized way to signify that.

This sentiment was not always felt by everyone in fact, 20 percent of interviewees were honest and said that their lives were here and had zero want or need to purchase property back home. Sometimes they would send money back home, but overall, they knew that the US was their new home. They would certainly go visit family from time to time but again the need to have a connection through property or land was not necessary.

CHAPTER 8 LOCATION OF CROSSING AND ANALYSIS OF MATERIAL OBJECTS

INTRODUCTION

This chapter reviews data addressing locations where individuals crossed as well as the material items individuals carried when crossing the US/Mexico border. Data on location and things that they carried were acquired by using PCOME data, ethnographic data, and Colibrí anonymized data. When individuals are found deceased along the US/Mexico border or within border states (see below) the data given to PCOME includes location of where the individual was found along with information of material objects/belongings that they found on or around the individual. During the interview portion of this research individuals provided information on where they crossed (if the felt comfortable sharing this so), as well as information on items they carried with them, or did not carry with them when they crossed. The Colibrí anonymized data did not provide information on objects carried but did provide data on locations where individuals were last seen alive (LSA). Each of these data sets provides a unique perspective regarding location in which individuals crossed and will further be explained as they are presented below.

LOCATION OF CROSSING

Here I would like to note the various issues and overall hesitance to discuss the location in where individuals crossed to come to the US. The primary issue regarding location has to do with the fact that this may unnecessarily expose avenues of crossing, which may serve as information for law enforcement agencies. This information may unintentionally cause harm as it has the potential to inform federal and state agencies where individuals are crossing, making it easier for them to be apprehend. However, this information can provide humanitarian aid to these areas and also aid in understanding the complex social, political, and economic impacts these locations have throughout time. It is certainly no secret that certain corridors are preferred for crossing, this data can be accessed by federal and state agencies by merely looking at information regarding apprehension locations and where individuals are identified deceased of where these deaths occur. However, information obtained for this research tended to have specific locational information that may not have previously been available to state or federal agencies. To provide information on locality but also provide some form of protection for these individuals I have gone through and made sure only generic location data is presented. For example, instead of saying, they were found in Tucson, Arizona about five miles away near a park, I would simply say, “Tucson, Arizona.”

PCOME Location of Crossing

Locational data provided by PCOME is different from information provided by interviewees and Colibrí anonymized data in that it represents locations of where individuals were found deceased. So here we are looking at the locational data of those who died on the US/Mexico border and sometimes even areas outside of the border (Table 8.1). There are also varies agencies and individuals that provide this locational data to PCOME. For example, PCOME can receive a call to go collect remains or have remains delivered directly to them. When this occurs the agency who finds the remains such as Border Patrol or NGOs can also notify PCOME where the individuals were found. Other times PCOME forensic anthropologists get called directly to the site in order to collect the remains, in which case PCOME collects their own locational data. Another entity that can contribute to these findings is the Tohono O Odham Nation, a federally recognized tribe that is located on the US/Mexico border in the state of Arizona. Given the tribes proximity to the border they have encountered a significant number of Undocumented Border Crosser's (UBCs) crossing through their land. Given that they are a sovereign nation the tribe can directly work with border patrol or PCOME when they do encounter remains on their land.

Table 8.1. PCOME Individual Location Information.

LOCATION OF REMAINS	NO. OF INDIVIDUALS
Air force base	1
Ajo, Arizona	8
Arivaca, Arizona	1
Arizona City	1
Barry Goldwater Range	2
Cochise County	1
Desert Area	7
Lukeville, Arizona	5
Nogales/Arizona Desert area	1
Organ Pipe National Monument	4
Picture Rocks	1
Santa Cruz County	1
Sasabe, Arizona	1
Three Points, Arizona	1
Tohono O'Odham Nation	15
Tucson, Arizona	2
Not Available	11
Total	**63**

As the table above indicates, sometimes individuals do not have specific locality data so will be generically noted as being found in Arizona. Other individuals will not necessarily be found deceased on or near the border. They can be found, for instance, in

the state of Arizona, which at first may seem a bit peculiar. However, the reality is that the journey to the US does not just stop once the border is crossed. Many individuals have other final destinations (for example, California, Oregon, Washington, and so forth). So, it is still possible for deceased individuals to be located en route to their final destination within the US. However, since this is data collected by the Pima County, all of the locations listed here are only within the state of Arizona.

Deceased individuals that are housed in PCOME were largely located in Tohono O' Odham Nation Land (30%), followed by individuals found near Ajo, Arizona (13%), and individuals found near Organ Pipe Cactus National Monument (11%). As mentioned above there might be various agencies and even regular citizens who report these individuals so locational data is not always available. This can happen because the individuals or agencies making the report feel uncomfortable sharing or they just simply did not note it down. Given the vastness of the desert sometimes it is difficult for individuals and agencies to pinpoint exactly where it is they may have located a skeletal fragment so what they do is just note that the remains were located in a general desert area. The data presented here by PCOME could at times actually be very specific. For example, it might say that an individual was located five miles south of Ajo, Arizona. However, the safety of these individuals is at the forefront of this research, so rather than given specific locations of where deceased individuals were found only the general location in which they were located was made.

Interviewee Location of Crossing

During ethnographic interviews individuals were asked about their experiences when crossing the US/Mexico border. As this question was asked individuals would often describe where it was that they crossed and sometimes they would offer up information of various locations crossed. Table 8.2 illustrates the various locations that interviewees indicated they crossed. These locations do not necessarily indicate the locations they successfully crossed through, but more so an overview of locations that stood out to them. As described in the previous chapter there may most certainly be additional locations but in order to respect their privacy and not cause any unnecessary harm only generalized locations that they volunteered to speak about were taken into account.

Overall, individuals interviewed tended to cross through Tijuana (30%), which is a city in Mexico south of San Diego, California. Another popular location that was associated for some with Tijuana was San Ysidro (20%). San Ysidro is located in California, however, when individuals spoke of this area it was in relation to Tijuana. For example, they would mention they crossed through Tijuana, but the second, "checkpoint," was in San Ysidro. This latter location tended to be where they were dropped off by *coyotes* or where they waited for family members to pick them up. Two other locations that were discussed were Nogales (Mexico; 10%) and Ciudad Juarez (Mexico; 10%). The following

chapter will discuss the implications of these two locations (Nogales and Ciudad Juarez) given their history of direct social and political violence, particularly against women. I would like to note here that while the data from PCOME versus interviews is different regarding location, this is not at all surprising. The data set for PCOME is exclusive to the state of Arizona, whereas with my interview data, it is more so random, depending on who I interview. We have only one individual, for example in the interview data that at one point in time crossed through Arizona, but primarily individuals in California that I interviewed, did in fact cross through California, again this is not surprising.

Table 8.2. Ethnographic Locations where Individuals Crossed.

LOCATION CROSSED	NO. OF INDIVIDUALS
Ciudad Juarez, Chihuahua (Mexico)	3
Ciudad Juarez, Chihuahua (Mexico) and Tijuana, Baja California (Mexico)	1
La Rumorosa, Baja California (Mexico) and Mexicali, Baja California (Mexico)	1
Mexicali, Baja California (Mexico) and Tijuana, Baja California (Mexico)	1
Nogales, Sonora (Mexico)	3
Nogales, Sonora (Mexico) and Tijuana, Baja California (Mexico)	1
Phoenix, Arizona (United States)	1
San Luis Rio Colorado, Sonora (Mexico) to Yuma, Arizona (United States)	1
Sonoyta, Sonora (Mexico)	2
Sonoyta, Sonora (Mexico) to Maricopa County (United states)	1
Tijuana, Baja California (Mexico)	9
Tijuana, Baja California (Mexico) to San Ysidro, San Diego (United States)	6
Total	**30**

Colibrí Location Data

Locational data provided by Colibrí was provided by family members, colleagues, or friends of those that had disappeared or not been heard of since crossing of the US/Mexico border. Given that this information was provided by family members, colleagues and friends this meant that they did not always have an exact location to offer, but would instead give information of the last location that they knew the individual was alive in. Some of the most often reported locations where individuals were last seen alive include Arizona, Sonora, and Texas.

Table 8.3 provides locational data with the location listed as reported during intake. In order to clarify location in the most general form in parenthesis is the country in which these locations reside, which were the US, Mexico, Guatemala, and El Salvador. Once again, the data provided does not indicate where they crossed or where they died but the last place where someone had communication with them, which is why the table can note locations such as Virginia or Florida. Sometimes individuals had in fact successfully crossed and were working in other states, but suddenly communication was lost, so by providing this information it can be utilized as a starting point for attempting to locate these individuals.

Table 8.3. Location Individuals were Last Seen Alive (LSA).

LOCATION LSA	NO. OF INDIVIDUALS
Ahuachapan (Mexico)	1
Arizona (US)	753
Baja California (Mexico)	47
California (US)	28
Chiapas (Mexico)	1
Chihuahua (Mexico)	20
Coahuila (Mexico)	17
Connecticut (US)	1
Durango (Mexico)	1
Distrito Federal (Mexico)	3
Florida (US)	1
Guanajuato (Mexico)	5
Guatemala (Guatemala)	1
Guerrero (Mexico)	1
Jalisco (Mexico)	1
Mexico (Mexico)	2
Michoacan (Mexico)	5
New Mexico (US)	3
Nuevo Leon (Mexico)	2
Peten (Guatemala)	1
Puebla (Mexico)	2
Queretaro (Mexico)	2
San Luis Potosi (Mexico)	3
San Salvador (El Salvador)	1
Santa Ana (Mexico)	1
Sinaloa (Mexico)	6
Sonora (Mexico)	301
Tabasco (Mexico)	1
Tamaulipas (Mexico)	65
Texas (US)	225
Veracruz (Mexico)	2
Virginia (US)	1
Zacatecas (Mexico)	1
Not Available	132
Total	**1,637**

MATERIAL OBJECTS/BELONGINGS

Information on things individuals carried while crossing the US/Mexico border was provided by PCOME and through interviews. There are no data here regarding Colibrí given that the anonymized data did not provide these details. That being said during the Colibrí intake process, those reporting the missing are asked what individuals were last seen wearing or what they took with them when crossing the border. However, that information was not provided as part of the Colibrí anonymized data set, so it is not reviewed here.

PCOME Material

Items found with individuals who were taken to PCOME are presented below; however, several things should be noted about how the data is presented and why. The first thing to note is that when individuals were brought into PCOME, part of the intake process included identifying what the individuals were wearing, items found around them, and items they were carrying with them which was typically in a backpack. However, given that sometimes remains were out for extended periods of time there were no items found in association with some individuals. Further, the intake process of these items was not always done by the same individual which explains the various ways in which items are presented in the table below. While they could have been formatted to be consistent, the reality is that this data in its raw form is what aids in the process of identification within PCOME, so it was left as intact as possible. Only information regarding names, phone numbers, shoe size, pants size, and shirt size was redacted from this list. Given the personal nature of these items, that information was removed, again to protect the anonymity of these individuals as much as possible. Similarly, the information is presented as a list without identifying the case numbers of these individuals. Instead of showing case numbers those individuals who did carry items with them or have items associated with them are presented in a random numerical order.

Within the sample of 63 individuals, 34 of these individuals did not have any items associated with them. Present in Table 8.4 are the 29 (46% of sample) individuals that had items associated with them upon arrival at PCOME.

Several trends are noted in the items carried by individuals taken to PCOME. Items of note include camo clothing (i.e., t-shirts, shoes, and pants), extra items of clothing, foreign currency, cell phones, identification cards, religious items, and personal care items. No food items were identified with individuals housed in PCOME. Of special interest is Individual 19, who had items associated that include, "a bag of white powder," various Mexican identification cards, various changes of clothes, foreign currency, a phone charger, and visa cards. As opposed to the other individuals listed, Individual 19 appears to have had items indicating a longer "stay" as opposed to items that would be more indicative of light packing and a single trip. The analysis at the end of this chapter goes into depth on the various categorical trends we see among these individuals as well as the specific use of these items.

Table 8.4. Items Associated with Individuals at PCOME.

INDIVIDUAL	ASSOCIATED ITEMS
1	A T-shirt (black); one pair of Pants/Jeans (black); Footwear (black); a Cell phone (black and red); a religious card; a religious icon; a backpack in white; a black cellphone charger
2	A camo hat; long sleeve shirt with camo fragments; a pair of black pants ("ANTHRAX" 32); a pair of camo pants; a white cloth; underwear consists of a plaid fragment; a "Quantum" cell phone white and pink; a phone card; a micro SD card.
3	A pair of pants soiled and torn; a belt soiled; a white metal belt buckle (since 1848 on the front); a large black plastic bracelet.
4	A pair of shoes that are red and black
5	Blue or green pull over shirt; Levi-Strauss brand denim jeans; Calvin Klein brand undershorts; metal rim glasses; cowboy boots with white sock and blue stripes
6	A green striped "CAT" short sleeve shirt; camo pants; black "LEVI" size 28 on person; a black "NIKE belt; blue and red "WILD WOOF" underwear; two black "PUMA" socks; two brown "CIF GENUINA PIEL" footwear; a brown "IMPERIAL" wallet; a white metal bracelet; a black Verizon Samsung flip phone; two multi-color shoe covers; five bills of foreign currency; three foreign coins (Mexican Currency)
7	Blue jeans
8	A camo long sleeve shirt; blue jeans; camo pants; orange and black "Leopoldo" underwear; two white adidas socks; two white "Nike Juventus"; two grey "SUMJOR SPORT"; black "PIXI ALCATEL ONETOUCH"; a purple camo backpack; a blue scrap of fabric "LACOSTE"; two foreign coins and two foreign bills
9	A belt fragment with white metal; two black shoes; a soiled backpack; several miscellaneous scraps of fabric; a toothbrush; toothpaste; five foreign coins (Mexican currency); miscellaneous papers.
10	White shoes
11	A black sweater "PONZ"; a blue denim "Refuge"; a black with white metal belt buckle; black/pink Nike shoes; one multi-colored beaded bracelet; black Samsun Verizon flip phone; a hair tie; foreign bills (Mexican and Guatemalan currency); a yellow "smiley" face coin purse.
12	A grey camo ballcap; a soiled, torn camo long sleeve shirt; a soiled, torn pants; a red sneaker "Nike"; six Mexican peso bills, one prepaid visa card
13	Blue jeans "Lee"; a black/grey shoe "pepe jeans"; one soiled piece of bra; multiple pieces of denim cloth.
14	A black short sleeve t-shirt; black (TENTACION) pants; camo pants; grey and pink underwear; two white socks (USA); two black and pink shoes; a orange G five cell with battery; one white maxwest with battery; one scrap of fabric with embroidery; a hair tie; 1 charging cord; 10 foreign coins (Mexican currency)
15	A camo long sleeve shirt; camo pants; one blue "Wrangler"; one photo (two small girls); foreign currency (Mexican and United States currency).
16	A soiled camo t-shirt; a black/green t-shirt; a soiled long sleeve shirt; blue jeans; soiled camo pants; black and white belt with "LA"; soiled underwear; two grey socks; two blue shoes; one white metal beaded rosary with a white metal cross; one Honduran passport with name; one red card; a map with numbers.
17	Soiled pants; black belt; brown shoe
18	A striped soiled t-shirt; long sleeve camo shirt; camo pants; a black (FOR YOUR ONE) pants; a black belt; black (ZAGA) underwear; two black socks; two white shoes; black wallet; Mexican voter card; two sides from one national población card; Mexican Drivers License; two blue shoe covers; one animal tooth; two black beans and 2 blue rocks; a red pouch and green pouch, Mexican currency, a ATM card
19	A black t-shirt; camo baseball hat; brown hoodie (OLD SCHOOL); camo pants; blue jeans (Calvin Klein); a grey polo; back and white metal "H"; black pair of underwear (BVD); a pair of red underwear (Jockey); blue plaid (Hanes) underwear; grey soiled fragmented underwear (BEV HILLS POLO); six white socks; eight grey socks; two carpet shoe covers; two black and red Nikes U.S.; one black wallet; one white metal watch; two Visa cards; a 1 black Cell (ZTE/Telcel); three Mexican ID's; one bag white powder; one black and grey backpack; one camo backpack; misc. cards and papers; six foreign coins; five foreign bills; one white phone charger; Colgate toothpaste; anti fungal barmial; toothbrush; Gillette Deodorant; nail clippers
20	Camo pants; one blue denim "JR LEWIS" pants; black fabric belt with white metal buckle; blue "HANES" underwear; a black wallet; visa; two Mexican ID cards; small photos; misc. papers with numbers; misc. cards; SIM card 'Telcel"
21	A black "Covington" coat; a blue denim "GASOLINE" pants; black with white metal buckle; blue stripped underwear; two black socks; two black and red air Jordans; black wallet with bule metal "PUMAS" emblem; a purple scapular (religious); black "alcatel" phone; a Mexican voter card; misc. paper with numbers; religious cards with coins; a foreign coin.

Table 8.4. Items Associated with Individuals at PCOME *continued*.

INDIVIDUAL	ASSOCIATED ITEMS
22	A green t-shirt; a black t-shirt; camo hat; one blue jacket (NIKKI); a torn grey jacket (GAP)(S); a camo hoodie; camo pants; soiled (TORN) shorts; soiled (TORN) bra; two brown boots (KANGURO); two shoe covers; one black glove.
23	A grey Arizona diamondbacks hat (59FIFTY); grey camo long sleeve shirt; grey camo pants; a black belt; two white socks; one grey backpack.
24	A camo t-shirt; one hat (OSFA); camo pants; two multi-colored shoes (ASICS); one ID with the name (REDACTED); two green shoe covers
25	A grey "Knights tale" t-shirt; long sleeve camo shirt; a grey sweatshirt "California Republic"; a green and white striped "Gap" long sleeve; a black and blue striped faded glory long sleeve; camo pants; blue denim "Urband star jeans wear" pants; black belt with white metal "Hollister"; a green Meximo underwear; two black socks; two brown shoes "SOL LATINO BY AFRICA"; orange wallet; a white metal ring with no stones; government ID from Mexico; a white metal nail clipper; Chapstick; misc. blue paper
26	Soiled wrangler pants; black belt; two white "New Balance 993"; a black and red wallet; foreign currency bill; two foreign coins; a receipt (Currency was American and from Mexico)
27	Camo hat; brown beanie; camo pants; blue sweatpants (Old Navy); blue (AERO STRONG) pants; black shorts; one lack belt (Echo end Mexico); blue and black underwear; six grey (USA) socks; two white ASICS; one light colored wallet; a visa; Honduran ID; camo backpack; two blue shoe covers; grey blanket; a foreign bill; a paper with numbers; one wifi card
28	A soiled hat "BLACK EAGLE 79"; one black and red coat "FREE COUNTRY"; a soiled striped "size Medium Aeropostale"; a shoe "Verlando"; a Casio illuminator watch with black band; one white Alcatel one touch cell; camo backpack; toothbrush.
29	Camo pants; blue "ellen" underwear; brown wallet; Guatemalan ID card, foreign coin, misc. papers, fragmented red cloth

Interviewee Listing of Material Objects Carried

During the interview process individuals were asked if they took anything with them when they started their journey across the US/Mexico border. It should be noted here that this question often caught many of the interviewees of guard and I had to explain what I meant by "if they took anything with them." In general, it appeared as if this question seemed to have no value to the interviewees, so they seemed both hesitant and confused when this question was asked. Without trying to prompt them I asked them to just try their best and recall what they would have taken with them. Not necessarily what they were wearing or what others had with them, I just wanted them to think if they could recall anything that they took with them and if they did, if they could tell me what they took and why. Table 8.5 lists the various items they recalled taking. As a reminder some interviews had crossed recently, while others had crossed nearly 20 years ago so their memories of what they carried was a bit more fragmentary.

Table 8.5. Items Participants described Taking with Them.

PARTICIPANT	ITEMS TAKEN WHEN TRAVELING
1	Backpack, documents, birth certificate (real) rosary, virgin mary necklace, cell phone, about $1,000 pesos, hat, two sweaters, and one change of clothes
2	Backpack, some food, water, Pedialyte, cell phone, documents, two hats, oatmeal, tuna, two 5 liters of water, and fruit
3	Hat, hot dog weenies, mayo, water, change of clothes, cell phone, and identification
4	Just what he was wearing and hid money in clothes
5	Change of clothes, backpack, water, saltine crackers

Table 8.5. Items Participants described Taking with Them *continued*.

PARTICIPANT	ITEMS TAKEN WHEN TRAVELING
6	Backpack, water, rosary, hat, saltine crackers, fruit, Suero (i.e. Pedialyte)
7	Backpack, money, two bottles of water, cell phone, hat, and snacks
8	Backpack, money, water, cell, identification documents, saltine crackers, and chips
9	Backpack, water, snacks, money, tried to pack light
10	Coyote let them know ahead of time not to take anything
11	Backpack, two one-gallon waters, and food including saltine crackers
12	Did not mention anything
13	Backpack, waters, chocolates, cookies, beef jerky, did not take ID
14	Had enough food, not extra food, but had enough.
15	Items taken by coyote
16	Items taken by coyote
17	Cross, new clothes, money, and food
18	Items taken by coyote
19	Backpack, hat, beef jerky, ID card, necklace, American money
20	In pockets: ID CARD, carried water, American money, Mexican money
21	Backpack, food (crackers, ham, water), cell, money (American and Mexican)
22	Backpack, documents (ID, voter card), addresses in Mexico and Untied States, Phone numbers on paper, cell, money
23	Backpack, water, Gatorade, hat, money, some clothes
24	Backpack, water, and identification cards
25	Backpack, documents, food (crackers), change of underwear
26	Backpack, phone, waters, money
27	Backpack, some food, water, cell, photo, rosary
28	Items taken by coyote
29	Backpack, jacket, money (American and Mexican) ID in pocket, crackers, hot dog meat, Tylenol
30	Items taken by coyote

Five individuals describing their experience in crossing the border told me that one of the main things the *coyotes* would not negotiate on was regarding items they brought with them. Meaning that the *coyotes* would tell individuals they were not allowed to bring *anything* with them except the clothes they were wearing. The reasoning behind this was that the *coyotes* wanted them to move fast and not be weighed down by anything else, so if someone did show up with a backpack it would be taken away from them. Sometimes it would be given back to them after the crossing, other times it was not. One interviewee did not speak about any items they carried at all, even while they were asked what they might have brought with them, and when examples were provided they simply responded by continuing on with the interview and completely ignoring the question.

In general interviewees described having had a backpack of some sort with them as well as snacks and beverages. Interviewees did describe that a lot of the food that they decided to take with them were purposefully high in salt or sugar and were items that they felt could keep during the journey (i.e., tuna, saltine crackers, oatmeal). Sometimes as a preemptive step to avoid the dehydration they knew would follow the crossing they would take Pedialyte (Suero).

LOCALITY ANALYSIS

The discussion of locality takes three very distinct forms within this research. First PCOME offers data on locations where individuals died, second interview information offers locations on where people crossed, and lastly Colibrí data offers locations on where people were last seen alive (LSA). Data from PCOME and interviews are the two data sets that can be more closely compared given that it focuses primarily on locations on or near the US/Mexico border and it emphasizes the location where individuals were crossing the border. I would also like to point out here that PCOME also shares this data with Humane Borders also known as Fronteras Compasivas (https://humaneborders.org/migrant-death-mapping/). This mapping system is quite unique in that it is open access and lets individuals search for those that were found deceased near the border by date, location, case number, and cause of death. An example of how this mapping open-source system works is noted below in Figure 8.1. The red dots represent deceased individuals in 2019 alone. Individuals can use this website and use research preferences to look at more specifics if they choose to. I find this resource to be vitally important because the data input here comes from reliable resources such as PCOME but can be accessed by anyone wanting to learn more about water stations or where individuals are found. Additionally, this map allows you to press on the red dots and learn more about the individual, for example if a name is available, it is listed here as well as a more exact location, date reported, sex, post-mortem interval etc. The overall goal here is to provide accurate data that is transparent.

Overall, we see that individuals taken to PCOME are listed as found in the Arizona area, which is because PCOME is located in Arizona and takes on only Arizona cases. Of particular interest here is that in the sample taken for this research a majority of individuals are found on Tohono O' Odham Nation Land. This is sovereign land meaning that law enforcement located on Tohono O' Odham land patrol the areas and are the ones that notify Arizona law enforcement or PCOME whenever remains are found. The fact that the deceased are found on tribal land brings up the issue of how the US/Mexico border placement tends to oftentimes bisect through native lands and interrupt centuries old cultural and religious customs for the tribes in these areas (Heidepriem 2015). This is a complicated and important discussion on its own but not delved into here (Austin 1991; Heidepriem 2015; Marak and Tuennerman 2013; Ozer 2001). We also see individuals being located near Ajo and the Organ Pipe Cactus National Monument. Of note is that all three locations (Tohono O' Odham Nation Land, Ajo and Organ Pipe) are near or adjacent to major highways (i.e., AZ-86 and AZ-85). From the interview data it was discussed that it is not uncommon for *coyotes* to cross by or near highways or to have individuals get picked up in these locations. While this cannot be confirmed with PCOME locational data, it is interesting to keep in mind given the proximity to these major highways.

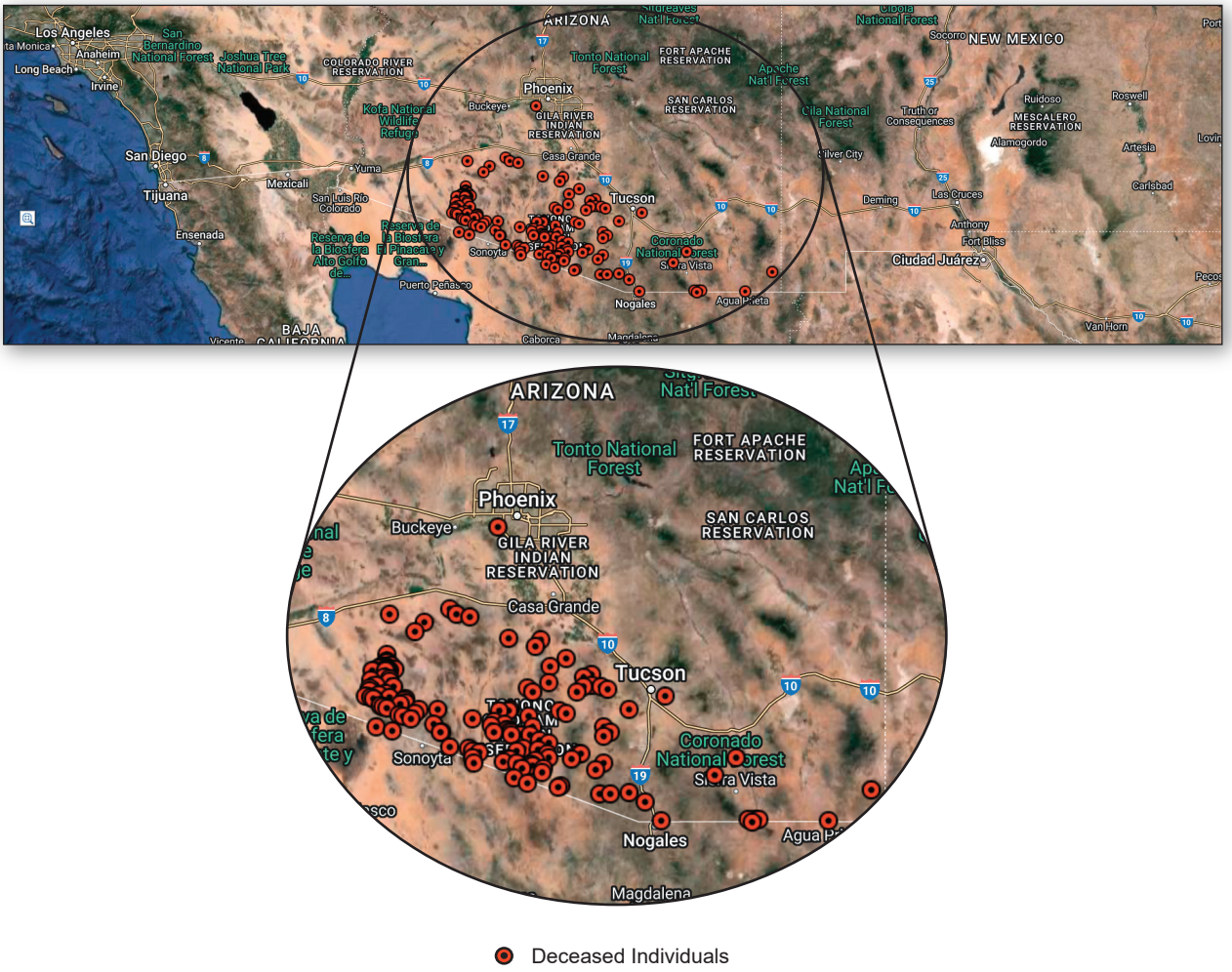

Figure 8.1. Map of Individuals Found Deceased on the Border in 2019.

Interview data shows individuals primarily crossing through Tijuana, Nogales, and Ciudad Juarez. Here there are three adjacent states instead of one, for Tijuana we have California, Nogales we have Arizona, and Ciudad Juarez sits adjacent to Texas. With interviews this breadth of location is not surprising given that many of these individuals did in fact cross more than once and I was interviewing individuals who live in California. In addition, individuals were able to explain that they had moved around before settling down in California, so explanation of their location of crossing and how they continued to move across the US landscape was much fluid than what can be seen in PCOME data. While the interviewees were able to show a wider range of crossing locations it still comparable to what is being seen at PCOME, which is basically locations that align with the border and themselves serve as homes for extensive Latin American migrant populations.

The Colibrí data is quite different. The anonymized data provides location an individual was last seen alive (LSA). This means that whoever reported the individual missing would say the location that they believed the individual was in fact last seen alive in. This means they could have spoken to the missing individual on the phone and could have been told they were in Texas for example, so when they are reported missing the person reporting them would say the last place, they knew they were alive was in the state of Texas, which is where we see a majority of individuals being reported as LSA. Needless to say, this is why sometimes the data offered by Colibrí notes individuals missing in places like Texas, Connecticut, and California. Another thing to point out that is not intuitive at first glance in this data set is that a majority of individuals were described as last being seen alive in Mexican cities or states (i.e., Sonora, Jalisco, Santa Ana), and even in the countries of El Salvador and Guatemala.

Given personal experience in working with Colibrí and conducting intakes myself I have unique perspective on this data. What is sometimes happening here, and what is sometimes forgotten, is that people have to first travel to the border. It is not a given that someone will make it safely to the border, often times conversations are so focused on the fatalities that occur there, and justifiably so, that we do not realize that fatalities sometimes occur long before they even reach that location. As a reminder people crossing the border are not just from Mexico they are also from South America and even if they are from Mexico they do not necessarily live anywhere near the border, meaning that a long journey is needed before the crossing of the US/Mexico border takes place. As people travel, they will often times keep in contact with family members or friends letting them know where they are stopping to rest on their route. However, after a phone call during their trip they might suddenly disappear and never be heard of again, so it is very possible that this person either died in process of going to the border or was able to reach the border but died during that crossing. It is also just as likely that they did not die at all but for some reason no longer want communication with people form back home. Another thing that could happen, which was discovered while conducting interviews, is

that sometimes people lie about their location as a way to avoid making their families or friends feel worried. For example, an interviewee mentioned that as they traveled up Mexico to get to the border, they would tell their family they were staying at certain hotels in certain areas that were known to be safe, when in fact, they were sleeping in shelters and cheap hotels in towns know to be violence. They had to stay in these unsafe locations because they simply couldn't afford to stay anywhere else, but they knew if they told their family members the truth it would just worry them. For them, telling them the truth of their location was pointless because it would just worry their families who has no way of helping them, so lying here was the best choice. Ultimately the reality is that unfortunately we might not ever know truly where some of these individuals were last alive, we could only account in this data set where they told loved ones they were located.

ANALYSIS OF MATERIAL OBJECTS

Things that individuals have carried with them while they cross the US/Mexico border has certainly become a topic of conversation since De León (2015) extrapolated on the value that these items have in understanding who these individuals were and what they may have valued in their lifetime (i.e., Undocumented Border Crossers). Within this research project the information on what was carried was from PCOME and interviews offer an interesting alternative view to this topic. Individuals interested in this research are encouraged to visit https://www.undocumentedmigrationproject.org/about, where De León and colleagues delve further into the topic. First with PCOME we are dealing with items found on or around a deceased individual. This means that some of these items may in fact not belong to this person(s) or this person(s) may have found them while crossing and taken the items with them. There is certainly no guarantee, because we cannot ask them if these items were truly theirs to begin with.

Even if these items belonged to them this does not mean that our interpretations of the items and their sentimental value or practical use are accurate. Given historical, cultural, and overall contextual information we can certainly try to understand what these items may have meant to them, but we do not know this with absolute certainty. So here I would like to emphasize that we should use caution when these types of interpretations take place. For example, if we see an individual carrying a religious item, does this mean they were very religious? Perhaps they did not actively practice that religion and wore that item (i.e., a cross or necklace with the Virgin Mary) to appease a family member, or as a means of protection from possible harassment from the *coyote* or others. Religious iconography can actually aid individuals as a symbol of respect or social protection, in a way building a community of protection if you will. In which case this necklace would not signify their religious values but rather familial values. As nuanced as this seems these small differences hold value especially when a portrayal of this person is being made based on the items they are found with.

I would like two bring two important emphases to the forefront before delving into the information provided here. The first is that De León truly does offer a unique perspective regarding the analysis of material objects. An analysis that is not necessarily focused on here, for De León, these items take on a life of their own, and justifiably so given his own research (Undocumented Migrant Project 2024). De León has formulated these objects and materials into artwork in order to illustrate the necroviolence that continues to push individuals into crossing such dangerous terrains (Undocumented Migrant Project 2024). The work he does emphasizes ethnographic research, archaeological research, and forensic research in the US, Mexico, and Honduras (Undocumented Migrant Project 2024). This is how De León interprets and breaths new meaning into this type of materiality, which is certainly a worthy endeavor but not the ultimate focus here.

The second point I would like to make here is how material objects and their analysis are viewed here specifically. As mentioned in the ethnographic portion of this research, when I asked individuals of things they carried with them as they crossed, many seemed surprised or confused by the question. They were unsure on why this was important, and they kept trying to draw the emphasis back to the actual event of crossing, or the negotiation with the *coyotes* beforehand. I found many times that they even tried to brush off the questions by just saying briefly that they just took water or a snack. Sometimes I was successful in redirecting the conversation to talk a bit more about these items and something unexpected occurred with a few individuals (again this is noted in the previous chapter). Some individuals actually expressed that anything they had with them, especially a backpack, was actually taken away from them by the *coyotes*. The rationale here was that carrying anything would slow them down, so they would get everything taken from them except the clothes they had on or anything that they could fit in their pockets or sweaters. Sometimes, after the crossing, they would get these items back, other times they would not. Unfortunately, there was not much they could do about it if the items were not returned to them by the *coyote*. In general, this conversation of items they carried, for many interviewees, tended to just lead to them letting me know that they just carried what they needed to. For them, these items did not really carry much meaning, more so they just saw them as items they needed to successfully survive the crossing. The more in-depth knowledge and sentiment behind these items was not necessarily as strong as might be expected.

PCOME-SPECIFIC TRENDS

Before I delve into understanding PCOME and interviewee material data in unison I want to take a second to briefly review the categorical trends we see within the PCOME data. I do this for two reasons, the first I want there to be a true understanding of what these items may be used for and mean, second when discussing interview data there still needs to be an understanding as to the reasons why individuals may take the

items that they do. I wanted to more generally identify some categorical trends that we are seeing among the individuals. These categories are illustrated in Figure 8.2.

I would like to begin by stating that these categories are not all encompassing but rather represent the most prominent trends among the 29 individuals who did have items associated with them in the PCOME data set. The categories are listed in alphabetical order and the items discussed within these categories are merely highlights and don't necessarily address every specific item listed in Table 8.4. The first category to address is "currency" which was not associated with all individuals but for those that did have currency with them they would have coins or bills belonging to the US, Mexico, Guatemala, and other countries not specified. As a reminder there were various individuals at PCOME at various points in time who would do these intakes, so how items were listed and described is not always consistent.

All individuals who had items associated with them had some type of clothing item on their body or in a backpack. These items included shoes, socks, pants, shirts, underwear, and even belt buckles. Clothing items present typically were represented by camouflage clothing or darker clothing. Many if not all individuals choose to wear dark clothing (if traveling at night) or camouflaged clothing in order to avoid detection by blending into their surroundings. Another interesting trend to is the mention of shoes with "carpet attached" or "covered shoes." Given my own experience at PCOME, with Colibrí, and during interviews I was given a lot of insight behind this trend. The reason why individuals glue or staple carpets on their shoes or even put plastic bags over their shoes, is to avoid detection. As they are walking, sometimes in groups, in the desert they are very well aware that they leave footprints, footprints which might be seen by border patrol and lead them straight to their group. In order to avoid this many individuals, choose to put carpet on the soles of their shoes so they do not leave any footprints and can remain undetected.

The category labeled "documents" includes items such maps, written phone numbers, receipts, papers with written directions, and papers with notes. This category is pretty straight forward and merely describes items that may potentially lead to family members (i.e., phone numbers or names), or locations the individual is going to or was at last (i.e., receipts, maps). "Hygiene" includes items such as toothbrush, toothpaste, nail clippers, and ointments, which were all items that actually were not common among this group. Given how quickly they are supposed to be traveling this is not all too surprising.

"Identification" can be a very complicated issue, which is why it is so important to discuss as a category here separate from general documentation. "Identification" encompasses voter cards, driver's licenses, voter registration cards, passports, birth certificates, and visas. At first glance one would assume individuals having identification would be easy to identify. However, as I previously mentioned sometimes people pick up

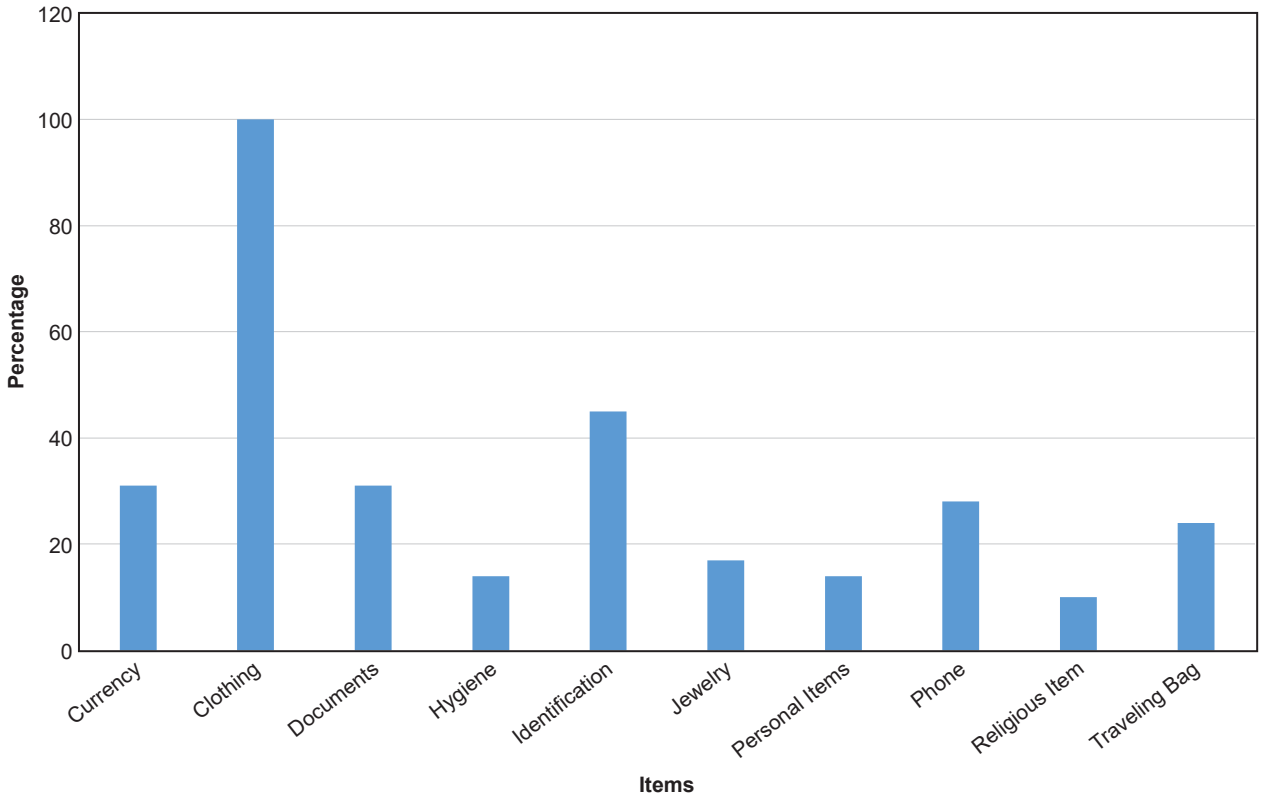

Figure 8.2. Categorical Trends of Items Found with Individuals at PCOME.

things that do not belong to them or potentially take items from individuals, they know that died during their crossing as a means to remember them or to take that item to a surviving family member. An additional factor is that people may be caring with them fake identification cards or assuming the identity of somebody else by carrying a stolen identification card. Looking at Table 8.4, we see that sometimes individuals carry with them multiple identification cards which can mean two potential things. The first is that they just brought with them various forms of identification, or it might mean this person is bringing various false identification cards. While an individual carrying with them some form of identification is useful it is not always as straightforward as we might think.

"Jewelry" included items such as plastic bracelets, metal bracelets, and watches. These items were not particularly common to see among this group but still interesting to differentiate from religious items which can also encompass jewelry. "Personal" items included things like hair ties, family photos, and personal letters, which again we do not see much of in this group, but still worth noting given that a lot of emphasis on interpretation of items revolves on who these individuals may have been during their lifetime. I would argue that having family photos or notes from family members can certainly give insight into that aspect of a person's life. As previously mentioned, my own experience gives me insight into this because when an individual is identified PCOME tries to make sure that all items they had with them are also sent back with them, especially items of personal value such as these photographs or even children's drawings.

Similar to the category of identification, "phones" also provide a very interesting means of potential information as to who this individual was. For example, there may be phone numbers stored in the phone which can be noted and called in order to see who they were calling. This might be a family member, a friend, or even a *coyote*. It has been my experience that sometimes there is success in communicating with family members or at the very least getting an area code or country code that can give us insight on where this person might be from or where they were trying to go. I personally am aware that there is sometimes an attempt to call these numbers; however, we need to keep in mind who is making the call and who is picking up the other line. For example, if border patrol is trying to call and introduces themselves as border patrol on the phone, odds are the person on the other side of the call is not going to want to respond. Even if the person making the call is not border patrol, it is important to recognize that we are talking about calling individuals who might be genuinely scared to speak with any type of authority figure so will often times just ignore the call.

"Religious items" here are represented by items such as rosaries, religious cards, prayer cards, and necklaces with a cross or saints on them. It is no secret that crossing the US/Mexico border is incredibly dangerous, so it comes as no surprise that people want to protect themselves through any means be it through wearing the appropriate clothing or though religious means. This category in mind a specific came to mind, Individual 18

who is noted as having, "one animal tooth; two black beans and two blue rocks; a red pouch and green pouch." Now this could quite frankly just be someone with an animal tooth, beans, rocks, and pouches, or it could represent some type of charm that is not necessarily associated with Christianity or Catholicism in any way. Oftentimes we tend to associate religious items with things affiliated with a form of Christianity (i.e., rosary, saints, prayer cards). However, we need to keep in mind that not all of these individuals have that background and may be practicing another form of religion which is just as important and valid, although potentially harder to identify.

Lastly, we have "traveling bag" or backpacks. It does seem odd that we are not seeing a lot of backpacks in this group. Given the categories and items listed within them, it seems very difficult for an individual to carry all of these items in their hands or pockets as opposed to having a backpack. Does this mean only these particular individuals had backpacks? I would strongly argue against that. I do not think this means most of these individuals did not have backpacks but instead they either disintegrated or were torn apart given time, environment, and scavengers, or as we have previously discussed, were taken by others such as a *coyote*. The only real insight I was able to gather regarding backpacks is through interviewees discussing the obvious need for one to carry things, as minimal as these things may have been. Various interviewees discussed that backpacks stored food, money, extra clothes, and water which allowed them to have their hands free to better move around as they traversed the border.

Much like with skeletal material it is possible and highly likely that depending on how long these individuals were exposed to the elements, a lot of the items associated with a person may have scattered throughout the desert. Meaning, we are not always finding intact material items, in fact sometimes we are missing shoes, or shirt, or even money. However, overall, these material items, if they aren't food, are less likely to be taken away by scavengers as opposed to human skeletal material. We need to also acknowledge that some of these items can degrade through time, such as food or any items made of organic material.

INTERVIEWEES ON ITEMS CARRIED

Through offering different lines of inquiry this research on material objects hopes to add dimensionality to this discussion. There is no doubt that items taken or not taken by individuals was done with specific purposes in mind, it was not done haphazardly. But it is not clear whether researchers added interpretations are justified.

Asking interviewees directly about this allowed them to use their own voices. Often, we allow these "artifacts" to speak for those that are deceased, but those that are alive can speak for themselves. Participants were quite candid and frankly a bit surprised when this question was asked. When I asked them about their crossing, I would follow it up with asking what they did or took to prepare for the journey. As they explained their

process, I prompted them to speak about any items they remembered taking. More often than not, they seemed a bit confused and asked for clarification on what I was asking. So, I would just simply say, "what did you take with you?". Many times, they would pause and say they couldn't really remember and then slowly try to list off items they brought with them (see Table 8.5).

Only two individuals let me know that they still held an item(s) from when they crossed. For one individual, it was the backpack he used. He smiled fondly and said that he will always keep that backpack because it reminds him of what he overcame to have a life here. Another spoke about a rosary that his mother had given him when he left. His mother had since passed but he truly believes it was his mother's prayers that made sure he crossed safely so he has kept that rosary and uses it often to pray. Alternatively, there were five individuals described having everything taken from them when they crossed by the *coyote*. The reasoning behind this tended to be that the *coyote* wanted them to move fast, and they felt that if people took things with them, that would slow them down. So, one of two things would happen: they would get their stuff back after they crossed, or they would never get their stuff back and there was nothing they could really do about it.

I would like to explore these examples to question our ideas of interpretation. First the two men who spoke about the items they still hold on to: the backpack and rosary. In the most general definition, a backpack is meant to hold items and aid in their transportation; however, this individual was able to explain to me that this backpack also signified his struggle and perseverance. Could we have known this from looking at the backpack alone? No. It was speaking with this individual that allowed me to understand the impact and importance this particular backpack had for him. The other individual who mentioned the rosary let me know that for him this was a reminder of his mother and the faith that she had, which eventually led to him having more of a religious connection. In this case, the rosary at a later point in time began holding religious value, but at the item of the crossing it signified his mother's protection. Bioarchaeologists, archaeologists, and forensic anthropologists need to make sure to continuously remind ourselves of the intricacy involved with human choice, thought, and emotion which are things not always innate in our field of study but still worthy of thought and consideration in our interpretations. De León's (2015) work is so unique as he did take the time to know and speak with individuals who were crossing and taking the time to understand not only why they felt the need to cross but also the importance of the items that they took with them.

Another thing to point out with items that individuals took with them while they crossed is that memory fades throughout time. So, if an individual crossed 5 or 20 years ago their memories of this would vary drastically. This doesn't mean that the interviewees are not being truthful, but instead it shows us how faulty our memories can be not just given an extended period, but also when taking into account that this situation was a

traumatic experience in their lives which may also impact their memories. Memories not only of the event itself but of items they had with them throughout the process.

ITEMS CARRIED BY WOMEN

Given that in PCOME data and in the interviews, there were so few women represented, I felt it worthwhile to focus the items that they carried along with them. Table 8.6 identifies the various items they were found with upon recovery. These women, much like their male counterparts carried with them items of clothing, cell phones, and money. However, in particular to them were items such as hair ties, bra remnants, and jewelry (non-religious). One individual was not found with any items, so this person was not listed in the original table (see Table 8.4). While some might believe that there are stark differences in what males and females carry, within this data set it does not necessarily seem to be the case. Again, we should recall here that this is a very different set of circumstances, they are trying to cross an unforgiving terrain and the goal here is to make out alive, so perhaps items that we would expect to be gendered are not necessarily included here.

Table 8.6. Items Found with Skeletally Estimated Females at PCOME.

INDIVIDUAL	ITEMS ASSOCIATED WITH FEMALE INDIVIDUALS
1 (originally not listed)	Not available
11	A black sweater "PONZ" ; a blue denim "Refuge"; a black with white metal belt buckle; black/pink Nike shoes; one multicolored beaded bracelet; black Samsun Verizon flip phone; a hair tie; foreign bills (Mexican and Guatemalan currency); a yellow "smiley" face coin purse.
13	Blue jeans "Lee"; a black/grey shoe "pepe jeans"; one soiled piece of bra; multiple pieces of denim cloth.
14	A black short sleeve t-shirt; black (TENTACION) pants; camo pants; grey and pink underwear; two white socks (USA); two black and pink shoes; a orange G five cell with battery; one white maxwest with battery; one scrap of fabric with embroidery; a hair tie; 1 charging cord; ten foreign coins (Mexican currency)
22	A green t-shirt; a black t-shirt; camo hat; one blue jacket (NIKKI); a torn grey jacket (GAP)(S); a camo hoodie; camo pants; soiled (TORN) shorts; soiled (TORN) bra; two brown boots (KANGURO); two shoe covers; one black glove.

A total of five interviewees identified as being females and noted below the items that they carried with them. As a reminder the items noted among interviewees was a lot smaller than what we see with individuals in PCOME. This occurs for several reasons of which were noted above and include memory and the fact that some of the items associated with PCOME individuals may also not have been theirs. Regardless, Table 8.7 describes the various items they remembered taking with them. An interesting trend here is that two of these women were not allowed to travel with items, as a reminder with interviewees five total were not allowed to bring anything with them, making women account 40 percent of individuals falling into this category. Like with PCOME data, female interviewees much like their male counterparts took similar items, clothing, water, and food. Overall, no real distinctive differences among men and women who were interviewed regarding items they carried with them.

Table 8.7. Items Female Interviewees Took with Them.

INTERVIEWEE	ITEMS TAKEN WHEN TRAVELING
10	Coyote let them know ahead of time not to take anything
23	Backpack, water, Gatorade, hat, money, some clothes
27	Backpack, some food, water, cell, photo, rosary
30	Items taken by coyote

PCOME INDIVIDUAL 19

During the interview process there was not a single individual who claimed to be a smuggler (*coyote*) or drug dealer. I do want to bring up, however, the one interviewee that mentioned being a "*coyote*," although this only happened when he was crossing himself, so being a *coyote* was certainly not his full-time occupation. It is possible that one individual recovered by PCOME (Individual 19) might have been involved with this type of activity as a *coyote* or drug dealer. Table 8.8 focuses on the items identified with this individual which include: one bag of white powder, various pairs of underwear, multiple types of currencies, various identification cards, and several hygiene products.

Table 8.8. Items Taken by PCOME from Individual 19.

INDIVIDUAL	ITEMS ASSOCIATED WITH INDIVIDUAL
19	A black t-shirt; camo baseball hat; brown hoodie (OLD SCHOOL); camo pants; blue jeans (Calvin Klein); a grey polo; back and white metal "H"; black pair of underwear (BVD); a pair of red underwear (Jockey); blue plaid (Hanes) underwear; grey soiled fragmented underwear (BEV HILLS POLO); six white socks; eight grey socks; two carpet shoe covers; two black and red Nikes U.S.; one black wallet; one white metal watch; two Visa cards; a 1 black Cell (ZTE/Telcel); three Mexican ID's; one bag white powder; one black and grey backpack; one camo backpack; misc. cards and papers; six foreign coins; five foreign bills; one white phone charger; Colgate toothpaste; anti fungal barmial; toothbrush; Gillette Deodorant; nail clippers.

Needless to say, the first sign that this individual may be a bit different from the rest was the use of aesthetic items such as white socks, nail clippers, toothpaste, deodorant, and fungal cream. The "white powder" in question was not actually a drug of any kind (personal communication with PCOME 2024). This powder was actually more so described as foot powder by PCOME. It seemed out of all other individuals, this person in particular seemed to have packed their bag for a more prolonged trip. This does not mean Individual 19 was a drug dealer/trafficker or a smuggler, but the items associated with this individual do vary from what we see with the others. Table 8.4 has a list of the items taken by other individuals which typically include a change of clothes, food, basic first aid materials, and very basic hygiene items. In contrast, this individual has various changes of clothes, currency from multiple countries, various identification cards, and a metal watch (which certainly would not make sense given the heat). These items are interesting for several reasons, one being that if you are crossing the desert, you want what you are carrying to be light and hold necessities such as food, money, a phone, a change of clothes and maybe sentimental items. It is curious why this individual would

have needed so many changes of clothes, various currencies, various identification cards, a white metal watch as well as a toothbrush, toothpaste, and nail clippers. Certainly, these items don't add up with the theme of going light for travel However, it is quite possible that individuals occasionally were able to pack and carry larger amounts and have their own drugs. Individual 19 is an outlier and emphasizes how complicated interpretations can be of who they were merely based on what they carried with them.

CHAPTER 9 DISCUSSION AND CONCLUSION

Issues regarding Undocumented Border Crossers are by no means resolved or even fully addressed, especially given today's political climate. These issues and concerns regarding migrants on the US border continue to be tackled in differing ways as various governmental actors attempt to push forward their own political agendas. However, something we should not lose sight of is that these are human beings who have been impacted generationally by structural violence. A violence that they experienced in their own countries and has followed them through time and space as they seek better lives in the US. This final chapter revisits the three prongs of research that were addressed in this dissertation, skeletal stressors, material objects, and interviewee information, as a means of understanding how structural violence shows itself in these different lines of evidence to see the "bigger picture" of the humanitarian crisis at hand. This chapter also touches base on the original Latin America countries which were viewed more closely, El Salvador, Guatemala, Honduras, and Mexico. In order to further delve into this discussion, the work of previous migrant researchers will be reviewed here to discuss trends or disparities in research (Beatrice and Soler 2016; Beatrice et al. 2021; De León 2015, 2024), while continuing to utilize the theoretical lens of life course, embodiment and personhood.

ANALYSIS

Chapter 6 extrapolated on the results for the 63 individuals analyzed in this sample and those results as well as their implications are noted here. Chapter 7 delved into the interviewee data set which provided vital information on the processes and circumstances leading to crossing. Chapter 8 touched on the material objects carried by individuals while crossing, as well as information regarding locations of crossing and where the interviewees were originally from. This section will go over some of the limitations of the data, as well as some comparative analysis to understand the larger theoretical implications at play. Given that we used three prongs of research for this data, skeletal findings will be intertwined with what discussed with interviewees. Information regarding material objects and locational data are also presented within this this section. This is done as a means to understand holistically how all this information is truly intertwined with one another and why it is so important that we continue to address these issues in this manner. Looking at structural violence and how it impacts immigration specifically at the US/Mexico border is not one dimensional, so I would argue it should not be researched as such.

DEMOGRAPHIC TRENDS

Sex and Gender

Within the sample of 63 individuals, five were determined to be female, 44 as males, and 14 as undetermined. While this is a small sample size it does fit in with the commonly reported data of males being those that are more likely to be found crossing the US/Mexico border (Anderson 2008; PCOME 2018, 2022). My interview also supports this sex-related trend, with only four women being able to be interviewed out of the 30 total individuals. With those individuals noted as undetermined, this is also unfortunately a common theme (Martínez et al. 2013; PCOME 2018, 2022). As will be noted below taphonomic processes play a huge role on a researcher's ability to be able to properly estimate the sex of an individual given a lack of skeletal markers (PCOME 2018, 2022). In a similar study of UBCs at PCOME (which will be discussed further below), Beatrice and colleagues (2021) noted that of their sample of 319 individuals, 82 percent were noted as male, 18 percent as female, and two individuals could not be determined for sex. The higher rate of sex estimation by Beatrice et al. (2021) is attributed to DNA analysis taking place on a majority of their individuals.

The individuals noted as undetermined in this present research were given this label for a couple of reasons. Reasons include the taphonomic process including environmental factors and fragmentation of skeletal material. This causes only a handful of skeletal remains to have the needed indicators to identify things like sex and age. Sometimes individuals found do contains indictors to determine things such as sex but not necessarily the indicators for age, which is why we can sometimes know certain aspects of the biological profile over others.

Regarding those individuals noted as male and female, there tends to be a very separate, but equally as important discussion. Within the PCOME data and arguably in other border crossing states there is also evidence that males are more likely to be found deceased on the border versus their female counterparts (Menjívar and Walsh 2019; PCOME 2022; Spradley and Gocha 2020).

In Beatrice et al. (2021) larger previous study of PCOME data from earlier data collection years from both Arizona and Texas, the authors also noted that in their simple of 319 individuals there were 260 males present, and 59 females (with two individuals whose sex could not be determined). The numbers for sex estimation may seem quite high this sample in comparison to that noted in this study. However, Beatrice et al. were able to take DNA samples of these individuals in order to determine sex. Given time constraints this was not possible in the current study. However, similar to this study males were still more likely to be those who are noted as UBCs (Anderson 2008).

There are various theories as to why we tend to see higher rates of males versus females crossing and dying on the border. One of the reasons why this might be the case,

involves the number of stressors experienced by men and women in their countries of origin (Beatrice et al. 2021). For example, in many of these countries there are very clear gendered defined roles, the male is the provider, and the woman stays home (McLean 2019). While this idea may seem quite archaic today, this is the reality of many women and men in Latin America (McLean 2019). This means that the cultural expectation is primarily for the male to go out and seek a way to provide for their families, hence a larger number of men crossing the border (Beatrice et al. 2021; Massey et al. 2006). Related to this is that women often stay behind to care for the children or other family members. With this in mind there is also the assumption that when women do decide to cross it has to do with a more expansive number of factors, rather than just monetary reasons which is often attributed as a main factor for males (Menjívar and Walsh 2019). Cerrutti and Massey (2001), have noted that some of these "other" reasons may have to do with threats, gender-based violence, or family reunification (Wurtz 2022). This is not to say that all countries view gendered social structures the same but rather to present an overarching theory of why this situation is seen in the first place.

Massey and colleagues (2006) have noted this gender-related trend in border crossing from 1998 to the present. These trends are ethnographic in nature and describe these trends through interviews, census data, and ethnographic data in a longitudinal study. These trends show that in certain geographical areas males are more likely to immigrate versus other areas where we see females more likely to immigrate. Massey and colleagues identified that social and economic structures in each location impact how these trends will play out. As they note these trends, they are able to apply migration theory in order to understand the very shifts in migration. The main argument in their work is that looking at these sex or gender patterns is more complicated because we have to take into account familial ties, friendships, economic ties, and political ties just to name a few. This issue of males versus females (i.e., who crosses more often), is actually quite intricate. It is also important to note that Massey and colleagues (2006) are working more with ethnographic data, while the data in PCOME is data of those that have deceased crossed the border. This means that the information that Massey and colleagues (2006) provide grasps this information from a cultural standpoint and addresses the potential meanings behind these decisions to cross and how they can come about and transform through time. Massey and colleagues (2006) explain that social and gender dynamics vary in different Latin American countries. Depending on the dynamic in each country we might find that females are able to cross in countries that are less patriarchal in nature (Massey et al. 2006). In short Massey and colleagues (2006) are positing that we are more likely to see men crossing from certain countries where societal norms tend to position men as "leaders" of the household or bread winners. The expectations are that they would cross, and women would stay back to take care of the children or their homes.

My own observations from the interviews conducted for this research add to this perspective. While I do not necessarily agree with all of Massey's reasoning, I do certainly see through interviews how marital status, and how women are viewed in their countries of origin impacts how and when they decide to cross the US/Mexico border. For example, an interviewee explained to me that her husband was the first to cross because she was pregnant at the time, however, once he was here, he sent for her. Meaning that she had to cross while pregnant, but only after her husband was already in the US. So, there is often a middle ground here, the male did cross first, but the woman followed soon after once it was deemed "safer" for her to cross. However, this doesn't always happen, again my interviews alluded to this complex situation. Sometimes the expectation was that women, regardless of if she has children or not, was expected to stay and wait for their husband or significant other to send money. I would also caution against the overarching assumption that gender-related trends are state or country specific. In fact, there were various interviewees that were from the same areas (in Mexico) that had very different ideas on sexual divisions of labor. For example, one individual could say that both them and their sisters were expected to work and do what is needed for their family, regardless of if they were male or female. In fact, when I was conducting interviews, I saw several women working there with their babies and even toddlers strapped to their backs. I even saw toddlers just sitting next to their mother while they worked playing around with sticks or eating some of the fruit that they were picking. I never saw a male with a child accompanying him or a child strapped onto their backs. However, another individual that came from that same area would say that the expectations was that female relatives stay at home and do house chores while they go out and try to find employment. Quite frankly there does not necessarily seem to be one overarching answer or reasons why it is we are seeing more deceased men over women. There is certainly room in this area for more research to be conducted and truly delve into the reality that social structures are not always static.

The data obtained from PCOME in this present research and by Soler et al. (2022) is very clear, men are more likely to be found deceased in the border (Soler et al. 2022; PCOME 2018, 2022). So, what exactly is happening here? While men do tend to be found in higher numbers deceased while crossing, this does not mean that women were not present at all. This can mean that they were able to cross successfully, or they crossed via other means (Massey et al. 2006). This also seemed to be the case with individuals I was able to interview for the interview portion of this study. In fact, it is not uncommon for women who cross the border to do so via smuggling, having a fake passport, counterfeit identification, sex trafficking, and even riding illegally on a train in order to cross (Green 2019; McLean 2019; Menjívar and Walsh 2019; Wurtz 2022). Again, women are in fact crossing, but sometimes their means of crossing are quite different from that of their male counterparts for some of the reasons noted above (Wurtz 2022). The influence of gendered social structures should not be diminished here, because as we can see it

significantly impacts not only who crosses, but where, and ultimately who is found deceased. The skeletal data on those that have died in this study are indicative only of individuals who have crossed and died through the Arizona desert; it does not account for those who have crossed via regions of the border. The skeletal data presented here from PCOME is from the state of Arizona, however, it should be noted that interviews in this study were conducted in the state of California. However, it is not uncommon for individuals to cross over in one state and end up living in another. Interviewees explained this throughout their interviews that sometimes they would cross through Arizona, Texas, or California. Once they arrived at the US they would move around, for some the final stop was California, others were still uncertain of where their final destination would be. This being said, there are differences in crossing trends that are possible given that I am acquiring skeletal data from Arizona and interviewee data from California. However, in this instance the data coincided with its findings not only in regard to sex and gender, but other areas as well which will be discussed below.

The literature regarding gender issues with those who are found crossing the border has multiplied substantially in the past couple of years (Massey et al. 2006; McLean 2019; Menjívar and Walsh 2019; Soler et al. 2022; Wurtz 2022). Instead of simply reading data at face value and interpreting it as males being primarily who cross the border, we are now beginning to ask why men are more likely to cross the border in this manner but more likely to be found deceased. We still do not know the answers to this question, although we can begin to see the larger social structures at play that tunnel certain individuals to specific trekking corridors.

While there is not a lot of data available for women that died on the border (only five individuals that died were include in this study) or made it successfully across the US/Mexico border within this project, I found it important to discuss those that are noted here. Table 9.1 highlights the findings of these women in the skeletal sample. Often times because sample sizes are so small women are not included or spoken about. However, because this research focuses on structural violence and marginalization it felt appropriate to discuss the matter.

All women were noted as adults and while not all skeletal indicators of stress were available to be observed, they are still important to note. It is the hope here that by noting women and displaying what was found skeletally that there can start being a larger discussion not only in forensic anthropology but in bioarcheological studies as well of women deceased in the US/Mexico border. Even within the interviewees we see that men are more represented than women in this realm. The women that I was able to interviewee were typically working with men in the fields, this is how I had access to them. Sometimes these women would actually be caring small children with them while they worked. Seeing this, I personally decided not to ask them to participate in my study as I felt it would add to stress load by asking them. This certainly impacts how many

women were actually interviewed. However, in general when I was interviewing overall there were more men working, so in terms of access they tended to be more available and willing to speak to me. The women in general tended to be timid and more suspicious during the interview process.

Table 9.1. Women Identified in the PCOME Skeletal Sample.

Individual	Sex	Caries	LEH	Dental Modifications	Cribra Orbitalia	Porotic Hyperostosis
Individual 1	Female	Unobservable	Unobservable	Unobservable	Not present	Not present
Individual 2	Female	Unobservable	Unobservable	Unobservable	Unobservable	Unobservable
Individual 3	Female	Not present	Present	Not present	Unobservable	Present
Individual 4	Female	Unobservable	Not present	Unobservable	Not present	Not present
Individual 5	Female	Not present	Not present	Present	Unobservable	Present

Age at Crossing

As with the estimation of sex, age was also problematic in the skeletal sample in this study given the lack of skeletal indicators that could be used in age estimation should help in aging. With age there are more categories in which individuals could fit into rather than just: male, female, and undetermined, which posted it own set of complications. The total sample of 63 individuals presented a total of 50 varying age categories from the FAR report data. Buikstra and Ubelaker (1994) present a total of five age categories to be used in biological profile analysis. Going from five categories to 50 in this data set is quite the jump and raises quite a bit of issues. The first issue to address is how is it possible to have this many categories. As has been discussed several times the state of remains can vary widely from an individual being represented by an entire skeleton to an individual being represented by only a mandible. The Forensic Anthropologists at PCOME are given quite a task at doing a biological profile given the state of remains. The best course of action here becomes to be as descriptive as possible and noting any potential age indicators and age ranges possible for a given individual so as not to exclude any potential for identification.

This same issue was encountered by Beatrice et al. (2021) leading them to create new age categories that better address the need of this specific skeletal sample. The age categories noted by Beatrice et al. (2021) are as follows: <20, 20–35, 35–50, 50+, 20+. This categorization allows for a wider range of age breadth given the uncertainty of age estimation within this sample, which is why this was also applied to the skeletal sample in this study. With these broad age ranges, 79 percent of individuals in this study fall into the following categories: 20–35 and 35–50. There are of course a few individuals older than 50, however, in the most general form individuals that are crossed are between the ages of 20–50, with adolescents accounting for two of the individuals present. A total of 10 individuals were not able to be determined for age, again this was due to the inability to utilize skeletal age estimation methods. Beatrice et al. (2021) also noted similar age

ranges within their own skeletal sample, age ranges of 20–50 are quite common and expected (Anderson 2008; Beatrice and Soler 2016; De León 2015). Within the ethnographic portion of this research there were actually various justifications of why this age range would be traveling these specific corridors, that also ties into the evidence of males being primarily who are seen deceased in these corridors.

One of the primary factors here is that many males between 20 and 50 years of age are expected to engage in harsh working conditions. Not only do individuals need to consider the crossing of the border, but also in the work that is needed to survive afterwards, which typically involves some type of physical labor (Hernandez 2018). Also, as previously noted, women tend to come in using different routes and for different reasons. Men, especially of this age range are almost expected to be able to handle these rougher conditions to get their "faster" and start working (Roberts 2017; Wheatley 2017). It should also be noted that many of these individuals are not only crossing the border once, but they are also actually doing it quite a few times. The reasons for this may be that they were detained and are planning to immediately cross or even that they worked in the US but needed to come back home for whatever reasons, and then needed to cross again (Roberts 2017; Wheatley 2017). This requires quite a bit of mental and physical stamina, which may be one of the many reasons why we are seeing these types of age ranges deceased among the borders, that also intersect with gender trends. It is important to add here that in interviews this idea and conceptualization of age was an interesting thing. It would have been easy enough for me to ask, "how old are you?"; however, as many individuals who conduct interviewees will know, sometimes you have to get a feel for the situation and in that moment conclude whether or not a question is worth asking. A single question can derail the trust and flow of the conversation. So, while through a bioarchaeological perspective something like age might seem simple to ask, when you are actually conducting the interview asking a question like that, while also asking a person to discuss sensitive topics, might seem cold and off-putting. Not to mention there are also unspoken cultural rules that need to be followed in order to ensure that a person feels as comfortable as possible speaking to you about these sensitive topics. For example, it might be completely fine and normal to ask someone who was born and raised in the US their age when interviewing them on a sensitive topic, however, someone from Latin America might find this a bit off putting. Further, with these interviews I understand that I have the privilege of also being a person of color whose family immigrated from Mexico to this country, so I am able to pick up on certain ques and cultural etiquette when asking these questions. So, while this data would have been incredibly useful, as a I conducted the interviews it seemed more appropriate to take the interview in a casual manual and instead of it seeming like an interviewer and interviewee format, a more open flow discussion seemed appropriate. Meaning that I allowed the interviewee to lead the conversation as much as they felt comfortable, while also bringing them back to the

discussion questions at hand. This is all to say that asking them their current age, while discussing their childhood traumas seemed a bit of out place, so the decision was made to not ask the question. However, they did discuss age ranges of when certain events did happen in their lives. For example, an interview would discuss when they were about five years old, they began working alongside their parents picking corn or raising cattle. Another format they would bring age into the interview on their own was when discussing the age, they were when they first crossed and entered the US. It was only in this way that ages were brought up and discussed. However, even in this context the ages did match the age ranges that we see of those deceased while crossing at PCOME. We see most crossing as young adults throughout mid-age.

HEALTH, STRESS, AND STRUCTURAL VIOLENCE

In discussing the trends in the skeletal data for the sample in this study, I also compare my findings to data by Beatrice et al. (2021). Given the small sample size of 63 individuals in this study, the data by Beatrice et al. (2021) provide an important comparison point. The sample of Beatrice et al. (2021) was partially obtained at PCOME from 2012–2018, while the research obtained for this study was drawn from PCOME data from 2017–2019. There is a small overlap in study samples, but comparison also provides a larger perspective through time and more importantly the sample used from Beatrice et al. (2021) is complementary to this sample in regard to methodology, demographic profile, and markers of stress.

Beatrice and colleagues collected skeletal samples of an estimated 319 probable migrants from the Arizona as well as the Texas border from 2012 to 2018 (Beatrice and Soler 2016; Reineke and Halstead 2017; Soler and Beatrice 2018; Soler et al. 2022; Spradley and Gocha 2020). As with the current skeletal sample, this sample was also acquired from those probable migrants who were deceased while crossing known remote, desert, migrant corridors.

The skeletal data below is tied to the ethnographic portion of this research, and I would like to highlight here that this is done in order to get a better sense of our "push pull" factors. Through interviews we will see and have seen that many of these individuals seem to have left for a better life and were "pulled" by the US' ability to produce employment and money. However, within these push factors, though not stated in words specifically, we begin to see how these more overarching structures of violence play out in their lives. For example, a lot of individuals mentioned there was no work or money to be earned where they lived. This is certainly a valid reason to leave, however, the larger issue here to think about is those structures in place that made it so these individuals were not able to have employment opportunities in the first place. Work and money do not suddenly disappear this happened over years of international governmental interference (specially form the US), centuries of racism, climate change,

and land disenfranchisement. It is these larger issues that have been enacted by larger players that then filter down to the population as a whole and then mask themselves as situations propagated by this larger population, when this in fact is not the case at all. The larger population and the economic, social, and environmental impacts that they are seeing are in fact out of their control, but the disguise of structural violence is such that often times the fault does not end up with the perpetrators but the larger public.

Indicators of Stress

Having CO or PH is indicative of early childhood stressors as well as stressors presenting themselves throughout adolescence (Gowland 2015). This stressor is typically associated with anemia, potentially sickle cell anemia, however, more recent work has noted that exposure to bacteria, viruses, parasites, and toxins might be what ultimately causes the response of the body to produce CO and PH, while the nutritional deficiency side of things can exasperate the process (Beatrice et al. 2021; McFadden and Oxenham 2020; White et al. 2012). The skeletal sample in this research identified 29 percent of individuals having CO, and an estimated 58 percent of population within this study sample presented signs of PH. In comparison Beatrice et al. (2021) noted within their sample that less than 10 percent of individuals exhibit CO lesions (Beatrice et al. 2021). In contrast, PH is the most common condition in her sample with half of the individuals in the sample showing PH, of these a little over half have barely discernible lesions. The rates of CO and PH in this study are comparable to Beatrice et al. (2021), however it is once again important to note that Beatrice et al. (2021) did have a much larger skeletal sample (Beatrice et al. 2021) that also considered individuals that were deceased on both Arizona and Texas border. Nevertheless, this is able to tell us is that individuals did experience similar levels of childhood stress (Walker et al. 2009). It is key to note again that the ability for us to note some of these stressors within the current sample is due to taphonomic processes making it impossible to have a complete cranium or be able to see if these lesions are present in the first place. As such, it is possible that they may have displayed CO or PH at some point, but we are no longer able to see it now. It is also possible that the porosities demonstrated in CO or PH were in the process or final stages of healing but still unobservable due to sun bleaching given the state of remains typically seen at PCOME.

This was also noted by Beatrice and colleagues (2021). Within this skeletal sample, generally, individuals displayed more PH than CO, however, a key reason for this was that the crania was more accessible and observable versus eye orbits. Given taphonomy as well as transportation of remains sometimes the orbit would be destroyed or obliterated. Work by Beatrice et al. (2021) similarly noticed higher rates of PH and noted these to also be in the males of their own sample. It is also noteworthy that none of the CO or PH lesions in this study appear active and lesion severity were all quite low (typically scored as barely discernable). This was also noted by Beatrice et al. (2021). This

indicates physiological/nutritional stress that was not acute at the time of death, and more reflective of long-term low level of stress earlier in life (Beatrice and Soler 2016; Goodman et al. 1988; Kyle et al. 2018; McFadden and Oxenham 2020; Reitsema and McIlvaine 2014; Selye 1973; Temple 2014). This does in fact coincide with what we are also seeing with interviewees, there was not necessarily one specific moment of stress in their lives, it seems that these stressors were long term and continued throughout their lives. The physiological and nutritional stresses they encountered were consistent throughout their childhoods and followed many to adulthood. Again, these were the leading factors that led them to have to leave in the first place.

It is important again to remember that one of the main reasons for coming to the US, is in the hope of a better life. Migrants specifically seek access to healthcare, food, clean water, and fair employment opportunities. It is no surprise then to see these individuals' showing signs of long term stress (O'Donnell et al. 2020, 2023; Walker et al. 2009; White et al. 2012). However, this does not mean that it is nutrition alone that gives us stress indicators such as CO and PH. More recent work has noted that exposure to bacteria, viruses, parasites, and toxins might be what ultimately causes the response of the body to produce CO and PH, while the nutritional deficiency side of things can exasperate the process (McFadden and Oxenham 2020). A study conducted by O'Donnell et al. (2020) also suggests that respiratory infections can also be a cause of CO and PH based on a study of a contemporary sample in New Mexico. The study found that active respiratory infections (pneumonia) at time of death correlate to those individuals who presented CO and PH (O'Donnell et al. 2020). With a respiratory infection, specifically pneumonia, an individual's ability to take oxygen is comprised given that the lungs tend to fill with puss and other fluid (O'Donnell et al. 2020). Most commonly we find that respiratory viruses are to blame for pneumonia, so here we see a further argument for a virus load being the factor leading to CO and PH (O'Donnell et al. 2020). Additional work by O'Donnell and colleagues (2023) addresses childhood illness and how childhood illness could lead to higher rates of CO or PH, specifically respiratory illness is associated with higher odds of having CO as well as endocrine, metabolic, or nutritional related disease (O'Donnell et al. 2023). While this study looked at individuals who had been sick for over a month, this still sheds light on how impactful illness can be to the human skeleton especially when taking into account other environmental factors.

Clearly, there is still quite a bit of discussion surrounding the etiology that leads to CO and PH (Walker et al. 2009). I would argue it certainly is important to see what factor or factors contribute to CO and PH, but it is also just as important to understand the social structures in place that cause the biological and social that can potentially host these types of ailments. While CO and PH can be indicative of metabolic stress, parasites, viruses, infections and so forth, they can also be used as evidence of structural violence (Klaus 2012; Soler and Beatrice 2018; Walker et al. 2009). While we are arguably still

discussing the etiology behind CO and PH, we can still see a common theme among all of them. This theme involves the inability to have access to proper healthcare, clean water, food, and sanitary conditions. Which is something we not only see skeletally but also in speaking with individuals who have crossed.

Within this sample seven individuals, where it could be observed, showed signs of both CO and PH. This could indicate that these stress episodes may have lasted a lot longer than one would initially think, because again if we are seeing these stressors, they will have had to been present for an extended period of time to show themselves skeletally (O'Donnell et al. 2020, 2023; Walker et al. 2009). For example, the inability to access healthy foods or clean water may not just have been an issue when they were children but may have been something that they experienced even into adulthood. Six of these seven individuals were noted as male, with the seventh having undetermined sex. I point this out here because in identifying that six of the seven individuals who had it were male, we once again run into the issue of men being primarily represented in his sample. Again, there are various reasons why we might see men primarily in the sample, however I do not want the assumption here to be that only men are stressed. Perhaps if we had a larger sample this might be different. However, even skeletally we also see this to be the case with the sample of Beatrice et al. (2021). They noted that in their particular sample, which is similar to my own, it is more likely for men to show higher rates of CO and PH. Unfortunately, neither Beatrice et al. (2021) nor I have been presented with a sample that equally represents males and females in order to determine which sex is most likely to show these stressors. From my interviews it was clear that stress occurred for both males and females, so perhaps it is a sampling bias that we are seeing here. Another thing to consider is that several individuals (n=38), were not able to be observed for CO and PH, so it is also possible that due to taphonomy we are missing indicators of stress during life. Unfortunately, there is no way around these taphonomic issues and is something that tended to also represent issues in Beatice et al.'s work (2021).

The interview portion of this study does provide insight into the types of environments, hygiene, and healthcare many of these individuals may have had that may have impacted the susceptibility to something like CO and PH. Further, taking into account the historical, political, social, and economic turmoil of these countries (i.e., Mexico, Guatemala, El Salvador, and Honduras) we are able to get a clearer picture of what type of stressors were present and how they have continued through time (Green 2011; Harari and Harari 2006; Monje-Rojas et al. 2023). For example, access to clean water, sanitation, nutritional foods, and dry living conditions have impacted many groups' ability to thrive physiologically, which was brought up in almost every interview for this project. Additionally, we need to remember that a lot of these individuals have experienced intergenerational trauma due to the experiences of their family members before them (Alvarado and Massey 2010; Castañeda 2017; Vogt 2013). While CO and PH

cannot give us the full story, it does begin to indicate the many stressors experienced by these individuals throughout time. Through the interview data, many individuals indicated they lived rural areas where accessibility to healthcare was difficult and only sought out for during an "emergency." Some of the interviewees also noted that a lot of their water access was actually from rainwater that they would collect. While this water was not the only type of water, they drank it helped supplement them until they were able to access water from town.

> Spanish: *Teníamos como un tanquecito allí arriba ya al lado de la casa. Y pues en el rancho salían las lluvias y pues de allí es donde pues de donde uno tenía agua. Lavábamos con agua allí del cenote, pero más así como para tomar y cocinar mi ama usaba esa agua pues que se venía.*
>
> English: We had like a little tank up there next to the house. And well, the rain came (in the ranch) and that's where you had water. We washed with water there from the *cenote*, but more so for drinking and cooking, my mom used that water (from the rain) that came. —Participant 1

Other interviews told similar stories that they would buy potable water in water bottles, by the gallon, or simply grab water from rivers and boil it when they got home. Running water was not always available and when it was, it was not necessarily drinking water. It is possible that other factors are at play here as well, such as parasites that came from food that was not cooked correctly or was spoiled to begin with. While we do not know this for certain, this is a possibility that should also be taken into account. This was alluded to in interviews but not specifically addressed, so the potential for this to have occurred is certainly there. So again, in interviews many people discussed that the meat, rice, beans, and vegetables that they consumed were grown by their families or traded with other individuals. The health of the crops or animals can always be put into question since there was not exactly any type of standard health practice put into place. As a reminder a lot of these individuals were surviving day to day and based on what their family could grow or sell in exchange for other consumable goods. This idea of health codes was not necessarily at the forefront of their minds and justifiably so. Clearly, we see a connection between the interviewees' information and what we are seeing skeletally. However, as we will discuss below, in order for CO and PH to actually show themselves on the skeleton this means that individuals would have had to be exposed to these stressors for quite a bit of time and have survived said events. I would argue here that instead of seeing the suffering and victimization of these individuals, healed indicators also demonstrate how truly resilient they can be even in harsh conditions. This is not to dimmish what they went through but rather to shed light on another perspective that is equally as valuable and posits these individuals as agents of change and having power,

whereas they are typically seen as helpless and incapable of caring for themselves in many instances (Méndez et al. 2020; Olayo-Mendez 2018; Velazquez and Kempf-Leonard 2010).

LEH/Carious Lesions/Dental Modifications

Dentition in general can play a very important role in the identification of an individual. This is why PCOME delves into dental analysis and attempts to obtain dental X-rays, when possible, for comparison purposes. Likewise, noting things like LEH and carious lesions, while not able to give us specific identification information, can shed light on the life and health of an individual (Lawrence et al. 2021; Soler and Beatrice 2018). Being able to assess LEH and carious lesions allows us to see if an individual was able to address health disparities (Lawrence et al. 2021). For example, if we see someone with a carious lesion that was addressed, with for example basically had a filling, this tells us that an individual had some type of access to dental care. On that same note, if we do see filling or amalgamation and it is done poorly this also gives us insight on the quality of care an individual is receiving (Soler and Beatrice 2018).

In this study 52 percent of the observable sample had LEH. In their larger study, Beatrice et al. (2021) noted that 34 percent of individuals in their observable sample showed indicators of LEH. Again, Beatrice et al. (2021) was dealing with a larger data set, so it is possible that these prevalence rates are slightly different because I, when possible, attempted to view individuals who had crania. Whereas Beatrice et al. (2021) looked at a much larger sample and did not make the same distinctions. So, this preference with individuals with cranium may have influenced those individuals noted with LEH.

Of the 15 LEH identified 12 of these individuals were male, one was female, and two had an undetermined sex. As previously noted, age ranges vary, however, all of the individuals were noted as adults, with the exception of two not being able to be aged). It is key to note that nine of the individuals noted to have LEH also showed signs of PH and a single individual was noted to have LEH and CO upon analysis. This is something also identified in the work by Beatrice et al. (2021). Again, it should be noted that due to taphonomic reasons (noted below) it does become increasingly difficult to note LEH since teeth can be missing or broken post-mortem.

Individuals that show both LEH and CO or PH simultaneously leads us to consider possible co-morbidity and how an individual demonstrating these types of skeletal lesions would indicate that this person experienced more than one childhood stressor for a prolonged period of time (Gijsen et al. 2001; Zuckerman et al. 2023). Comorbidity in its most general sense means that an individual can experience more than one condition or disease at a time (Zuckerman et al. 2023). We also need to account for how a condition that an individual experiences could then exasperate additional conditions (Wissler and DeWitte 2023; Zuckerman et al. 2023). For example, if we are dealing with someone who has little access to food or healthcare, they will be more likely than someone who does

have access to these things to acquire any given condition. I would also like to add here that when discussing comorbidity, it does not necessarily have to be a disease or infection we can also be referring to stressors such as depression, anxiety, and exposure to violence, which is something that is certainly experienced by the individuals in this sample (Cummings et al. 2014). These stressors, whether physical or emotional, can also be carried out through long periods of time and do not necessarily have to be linear (DeWitte et al. 2015; Wissler and DeWitte 2023; Wood et al. 1992). All this to say that in can become quite complicated to pinpoint a specific factor that leads to these skeletal conditions.

Skeletal stressors such as LEH, CO, or PH do not occur over night. Additionally, it takes time for them to develop signs of healing (O'Donnell et al. 2020, 2023; Walker et al. 2009; White et al. 2012). This would mean an individual had to live through this entire process in order for us to see it on the bone in the first place. It further illustrates that the individual had to live through the slow process of healing as well (DeWitte et al. 2015; Wissler and DeWitte 2023; Wood et al. 1992). This means that while the individual was suspectable and vulnerable during this time, they were also resilient enough to withstand these stressors in order for us to see them (DeWitte et al. 2015; Wissler and DeWitte 2023; Zuckerman et al. 2023). Interviews with those that successfully migrated across the border are living proof of this resiliency. While interviewees did not say this outright or go into detail about the various illnesses that they encountered, the fact that they were alive and willing to be interviewed shows their strength.

Within the sample of those with observable dentition 56 percent were identified to have carious lesions and among those on average we see 82 percent having some type of dental restoration. In this study all individuals with carious lesions 96 percent were noted as males and six percent of an undetermined sex. In a larger study of both Arizona and Texas deceased migrants Soler and colleagues (2022) also discuss caries, noting that of in a total of 300 deceased migrants with observable dentition, 74 percent had caries present (Soler et al. 2022). Of the 74 percent, 26 percent had dental restorations (Soler et al. 2022). While Soler et al. (2022) show higher rates of carious lesions in their sample, dental restorations seem to be more prevalent in this sample. As previously mentioned, my sample was a lot smaller than Soler et al.'s (2022) and Beatrice et al.'s (2021), which might account for this data gap in regard to percentages. I was also able to have access to more recent skeletal samples, meaning that the dentition tended to be more intact with those individuals.

As we note carious lesions in this sample it is important to note that globally what we are seeing is that political and economic processes have made it so highly processed and starchy food and beverages are more easily accessible and affordable. For many of these individuals this is the only sustainable way to have access to even slightly nutritious foods that are affordable. So, observing various lesions within this group is not surprising. In interviews when participants were asked about medical care, they

mentioned that dental care was not a routine thing they did at all, in fact a visit to the dentist sometimes only happened if they were in extreme pain. I would surmise that this was also the experience of those individuals in my own sample and in Beatrice et al. (2021) sample. Given my own sample size, theirs might be more representative of larger trends with this particular group.

Dental modifications for the purposes of this research include surface modifications, for example, fillings for caries, drilling without inlays, crowns, wear based on a specific use, and aesthetic modification (i.e., gold designs glued to teeth). While not indicative of the availability of certain foods or resources, do provide an interesting means of aiding in identification. While an individual cannot be solely identified based on teeth restorations or modifications it does offer unique insight on these individuals (Reineke 2013). In the sample there was a total of eight individuals with dental modifications. As previously noted, six individuals had dental modifications as well as caries. The remaining individuals showed dental modifications (i.e., fillings) but no additional caries. All the individuals in this sample had dental modifications int eh form of fillings primarily represented by silver (amalgam) fillings. Six of the individuals with dental modifications were noted as male, one as female and on individual had an undetermined sex. All individuals were noted to be over the age of 20 and fell into the category of adult. It should be noted that when the phrase, dental modifications, is used it alludes to cavity fillings, gold or silver crowns, and other forms of dental restorations (Soler et al. 2022). However, what is not always talked about is the more aesthetic or cosmetic dental modifications that are sometimes seen in individuals who cross the border (Soler et al. 2022). Here these dental modifications signify those that are done for aesthetic purposes.

For example, some individuals may be found with a silver or gold star on one of the anterior teeth. There is no medical reason for this (i.e., filling for carious lesions), but rather used solely for aesthetic purposes. The aesthetic purposes can range from wanting to stay on trend to aiding in visual association with a certain group. Regardless of the purpose, noting these dental modifications certainly helps in terms of circumstantial evidence to support a positive identification. Within this study skeletal sample there were no aesthetic dental modifications. Soler et al. (2022) did note several of these within their sample, although these were represented mostly in terms of dentures. Therefore, these dental modifications, while potentially helpful, do not represent themselves significantly in either sample.

The interviews conducted were able to shed light on the topic of dental health. Interviewees mentioned that access to any type of medical care, including dental care, was typically well thought out. For example, if they had a toothache they did not just immediately go to the dentist, they would have to wait until they could take time off work and use this time off to make sure to address any other medical needs that needed taking care of. A lot of the individuals I interviewed did not live in cities so going to a city where

care was available had to be thought about beforehand since it was quite the journey that impacted their finances. When individuals went to the dentist they were typically paying in cash on the spot. In the US it is so commonplace to have some sort of health insurance or payment plan that we do not often think of the hardships of paying out of pocket.

> Spanish: *A duras penas uno iba con el doctor así que pues al dentista, pues esta más difícil. Pero digo en mi pueblo sí había dentista la Dra. Yolanda, hasta me acuerdo, muy simpática la señora, pero pues no, uno tenía ya el dolor cuando iba. Y ya nos los sacaba o ponía corona así cosas por el estilo. Uno no iba nada más para que lo revisaran*.
>
> English: It was difficult to go to the doctor, so to go to the dentist, it is more difficult. But in my town we did have a dentist. Her name was Dr. Yolanda, I even remember her, the lady was very nice, but no, one already had the pain when we went. She either tooth them out (teeth) or put a crown on them, things like that. You did not just go for check ups.—Participant 16

However, oddly enough the lack of standardized insurance does allow for more reasonable dental fees. A very brief example an interviewee shared in this regard was in talking about getting a tooth crown. They explained that while they have insurance in the US, it would still cost them out of pocket about $500 to get a crown and it would take weeks to get an appointment. Whereas in Mexico all the work could be done in one or two days and payment was given up front for 1,500 pesos (roughly the equivalent of $92 at the current exchange rate). While this is certainly significantly cheaper this does not make it any easier for these individuals to be able to afford. Typically, they must wait for a prolonged amount of time before they go in to get caries filled because they need to have the money up front, there are no credit cards, insurance, or payment plans. In the case of individuals who have dental modifications as a fashion statement (i.e., gold stars on their teeth) noted by Soler et al. (2022) indicates individuals who did have the financial means and time to get this done. However, this is actually quite rare to find but still noteworthy. This does not necessarily mean an individual had a lot of money, but maybe that this individual is selecting to spend their money on their appearance versus other more necessary things. We need to remember that individuals crossing are still very much human beings who have their own sense of interests and fashion, so while they are seeking a better life, it does not mean that they are not interested in their appearance. These individuals are multi-dimensional and need to be viewed as such. This multi-dimensionality was very clear throughout the interviews given to interviewees about different childhoods, environments, and families as they grew up.

During some of the interviewees this conversation actually was brought up, the use of gold teeth as a fashion statement. Generally, interviewees would note this as something the "*chavitos de ciudad*" (kids from the city) would pay for. The implication here being that

typically younger individuals who lived in cities and had the financial means would get these types of things. It was certainly never equated to the need to get a caries filled, getting a caries filled and getting a fashion modification were viewed as two very different things. However, both can be equally as telling about who these individuals are and what they held to be important.

Fractures

In this sample, a total of five individuals were noted to have some type of fracture. The fractures include a healed depressed fracture on a frontal bone, a poorly healed fibula fracture, a healed fracture to a third right rib, a healed fracture of left fifth rib (distal end), and a healed fracture to the left and right nasals (noted in the table below). Given the on-going popularity in the media of drug wars and stories of cartel violence, many would expect that these migrants have more significant signs of physical violence on their bodies. Beatrice and Soler (2016) noted in their sample primarily poorly healed fractures, however, no further extrapolation on cause was made in regard to skeletal fractures or a percentage of the individuals impacts by this. Nevertheless, the fact that we are seeing poorly healed fractures in both this current sample, and in Beatrice and colleagues' earlier study, indicates a lack of medical care post-fracture, or if medical care was had, care for the fracture was not upheld in a way that would provide proper healing. While we cannot say this with certainty when interpreting the skeletal record, in the interviews conducted for this project it is very clear that a lot of these individuals tend to be of lower socio-economic status and of working class. As discussed earlier, any time off work, or multiple visits to seek medical care, as would be the case for fractures, is simply not logistically or financially possible for many of these individuals.

In the conducted interviews many individuals expressed that going to the doctor was not as simple as just driving to a clinic. It required planning in order to get to the clinic since not many of them had a mode of transportation. Sometimes what these individuals did was go to *curanderas*/*os* or folk healers because this is all they had access to. So they would go to these individuals and address their illness whether it be a cough, toothache, or bone setting and then go back to work as soon as possible. So even if a folk healer was able to help set their bones in place, the fact of the matter is that a lot of these individuals did not have the luxury of taking time off work. If they did not work, they did not eat, so it is not entirely surprising that we are seeing a lot of fractures that did not have the time to properly here, be it because they did not see a doctor in the first place or they did not give their injuries enough time to heal.

It is important to note that within folk healers there also tend to be specialization. For example, interviewees mentioned that when they had specific ailments, they would try to go to a healer whose specialist that ailment was. Fractures, for instance, tended to be

addressed by a folk healer that focused on bones, sometimes known as a "*husero/huesera*" (bone healer).

> Spanish: *Iré aunque era difícil así tomarse uno el tiempo para ir al doctor, y pues hasta caro y a veces uno sale igual. así que si íbamos mucho con una señora de mi pueblo. Y ella pues todos sabían que cura no, era una husera. Y ya ve uno de chiquillo va corriendo y ni cuenta se da y una vez ay no pe caí y era un dolor de mano, aquí en mi mano que yo sentía morirme. así que fuimos y me dice la señora que se vale llorar, y yo pues ni alcanzo a contestarle y paz me agarra y me tuerce, no no no yo sentí la muerte. Y ya después no más dijo que me cuidara y le dio a mi mama me acuerdo una pomada que hizo era como un color café, bien pegajoso pero unas semanas cada noche me mama me ponía la pomada, y si así no más.*
>
> English: Look even going was difficult, to take the time to go to the doctor, and it is even expensive and sometimes they do not even cure you. So we went a lot with a lady from my town. And she, well everyone knew that she was a healer, she was a bone setter. And you see, as a child you run and you don't even realize it, and one time, oh no, I fell and it was a pain in my hand, here in my hand (points from wrist to elbow) that I felt like I was dying. So we went and the lady told me that it was okay to cry, and I couldn't even answer her and boom she grabbed me and twisted me, no, no, no, I felt death. And then she just told me to take care of myself and gave my mom, I remember, an ointment that she made, it was like a brown color, very sticky, but for a few weeks every night my mom would put the ointment on me, and if that was the case, no more.—Participant 10

I would like to clarify here that I am by no means diminishing the capabilities of these folk healers, in fact they play a huge role and provide a great service to many families that otherwise do not have the time or ability to afford healthcare. I highlight this example because it actually sheds light on several things. First, it is not always possible for someone to get access to medical care if they hurt themselves or fracture their arm. Sometimes they would just wrap their wounds and hope for the best, other times they were able to go to healers, and sometimes they even were able to see a doctor. However, proper care *after* an injury is also vital to the healing process, which was not always possible for many of these families. Care post-injury can sometimes mean medication, resting, or physical therapy, which are not necessarily options for these individuals. Secondly, these injuries or fractures are not always caused by direct violence, sometimes they happen while at work or even while playing as the individual above demonstrates. Regardless of the circumstance we also need to account for the skeletal health of these individuals, as we have seen time and time again, especially through interviewees, access to proper nutrition and healthcare was always a factor in their lives. Individuals with these injuries may already have had frail

bones due to poor health or nutrition, meaning that the healing process may have been a lot more difficult regardless of medical attention that they may have received (Agarwal 2008). I would argue that this predisposition of bone fragility is an oftentimes overlooked topic of discussion when it pertains to UBCs and even more so in UBC fracture literature.

Fracture-related literature regarding migrants and UBCs tends to focus on injuries or more specifically fractures caused while the actual crossing is taking place (Greenhill et al. 2024; Koleski et al. 2019; Palacio et al. 2021). Research in this area is actually quite important because it highlights the indirect violence (i.e., fractures) that can occur when crossing. These fractures can occur when individuals are trying to jump a fence, walking steep hills, tripping and falling due to dehydration, running away from border patrol, or while being apprehended by border patrol (Greenhill et al. 2024; Koleski et al. 2019; Palacio et al. 2021). This highlights the unintentional violence that occurs to these individuals' bodies when they attempt to cross. I would argue that the latter example (border patrol) is more indicative of direct violence (Greenhill et al. 2024; Koleski et al. 2019; Palacio et al. 2021). Inglesby and colleagues further discuss and address the work-related injuries that UBCs have even post-crossing the border (Inglesby et al. 2022). Given the harsh working conditions and their undocumented status they have found that these individuals, specifically males, are more likely to sustain work related injuries that remain untreated (Inglesby et al. 2022).

The fractures in this sample, although a small number, do suggest possible physical violence. In general, the types of fractures we are seeing are indicative of potential interpersonal violence (Christensen et al. 2014; DiMaio and DiMaio 2001; Love and Wiersema 2016). Fractures that are noted are all ante mortem healed fractures or fractures in the process of healing (indicated by the woven appearance of the bone). So, we do know that they did not occur during this present crossing (where they were found deceased), however it is of course possible that these injuries we do note were sustained during previous crossings.

With the small sample size in this study, and lack of specific individual health histories, we are limited in interpretation of the fractures. However, despite this, the traumatic injuries present do suggest several possible causes. With all of these individuals we can discount sharp force trauma (i.e., trauma created with a tool or a point with a beveled edge (Christensen et al. 2014; DiMaio and DiMaio 2001; Love and Wiersema 2016). This type of trauma is typically characterized by a straight line, incision, punctures, gouges, and clefts, which we do not see within the sample. High-velocity projectile trauma can also be discounted given that we are not seeing individuals with projectile type woods (i.e., bullet wounds). This trauma would be characterized by oval, keyhole-shaped, or irregularly shaped wounds given the high velocity of the item striking the individual (Christensen et al. 2014). Blunt force trauma on the other hand does seem quite possible, especially in the individuals demonstrating a healed depression

fracture on their crania and possibly fractures to their left and right nasals (Adserias-Garriga 2019; Christensen et al. 2014; Passalaqua and Fenton 2012). This may have been a result of a blow from a blunt object, and we see the bone bending internally as a result of the trauma. (Christensen et al. 2014; Passalaqua and Fenton 2012). When it comes to nasal fractures this has long been associated with interpersonal violence (Christensen et al. 2014; DiMaio and DiMaio 2001; Magalhães et al. 2020).

While fracture literature is extensive what I would like to highlight here is the fact that the types of fractures we are seeing here do indicate some type of interpersonal violence or could certainly be caused by a fall especially in the individuals noting fractures on their fibula, and ribs. Is it possible that these were also caused by interpersonal violence. Especially since it is certainly possible for fractures to the ribs to be caused by habitual labor, a fall on a hard object, or impact directed at an individual rib with a hard object (Love and Wiersema 2016; Lovell 2008). With these individuals we only see one fracture on the rib, whereas with interpersonal violence we would certainly expect to see several associated fractures with the rib if this was the case. So, it is certainly more likely than not that these rib fractures were not necessarily caused by interpersonal violence). I would argue here that the two individuals with trauma to their crania and nasals are likely to have encountered some type of interpersonal violence (Adserias-Garriga 2019; Christensen et al. 2014; Passalaqua and Fenton 2012; Winburn et al. 2022). The PCOME annual report (2022), also does not specifically note fracture trends, however work by Anderson (2008) has also noted the fact that many times these fractures are poorly healed, in the process of healing, or healed.

Table 9.2 notes the five individuals with fractures, all of which were noted as adult males. Individuals 1, 2, 4, and 5 were located in the Parish County area (Desert environment), where Individual 3 was found in the Tohono O'odham Nation area (Desert environment). Of interest is that the individuals with fractures do not necessarily show other stress factors such as LEH, CO, or PH. However, this does not mean that the individuals were or were not stressed, this simply means that we were not able to identify those indicators in the specific skeletal locations or their bodies did not have enough time to display these stressors (i.e., osteological paradox which will be discussed below).

Table 9.2. Individuals with Fractures and Other Skeletal Stressors.

Individual	Fracture	Caries	LEH	Dental Modifications	CO or PH
2	Poorly healed fibula fracture.	Not present	Not present	Not present	Not present
3	Healed fracture to third right rib.	Unobservable	Not present	Unobservable	Not present
4	Healed fracture of left 5th rib, distal end.	Present	Not present	Not present	Not present
5	Healed fracture to left and right nasals	Present	Not present	Not present	CO and PH present

TAPHONOMY AND PRESERVATION

In Chapter 6 various macro- and microtaphonomic factors were noted such as environmental exposure, animal scavenging, and Weld tunneling (Anderson 2008; Beck et al. 2015; Jans 2008; Trueman and Martill 2002; Végh et al. 2021). These factors can and do significantly impact the ability to identify individuals, which was also something noted in the research conducted by Beatrice et al. (2021). Here, however, it is important to delve into how individuals are acquired or received in PCOME and what this means at the larger level of structural violence In general the remains of deceased individuals were acquired by landowners, members of the Tohono O'odham Nation, members of the general public, law enforcement, fellow border crossers (who call for help), and US Customs and Border Protection (Heidepriem 2015). It is rare for the forensic anthropologist in PCOME to personally physically go out to collect the remains themselves (PCOME 2022). So, it is typically at the discretion and expertise of the previously mentioned entities to collect the remains. This situation was also replicated in the work conducted by Beatrice et al. (2021).

I would like to reiterate significant taphonomic factors that impact our ability to accurately assess skeletal material. One of the first things encountered during this process is that various skeletal markers that added in stress indication of in the biological profile were not observable (Jackes 2011; Manifold 2015). This occurred given the extent of time individuals were out in the environment. While this is not uncommon within a forensic assemblage, it can certainly affect the development of a complete biological profile. This led to several gaps in data collection, however, it can be argued that this very issue can begin to deepen the understanding of the violence and carelessness that these individuals experience even after death. Beatrice et al. (2021) have spoken about this very issue in their own work that also involved skeletal analysis of UBC at PCOME. In their research throughout the years, they noted that certain markers of stress were not observable given significant sun bleaching that resulted from extended exposure in the desert, where many of these individuals were found (Soler and Beatrice 2018). In addition, remains that were able to be collected were often incomplete, which occurred for several reasons including the natural erosion process, animal scavenging, and purposeful removal (Soler and Beatrice 2018).

The second issue brough up through the taphonomic process is not always being able to find a complete individual. What I mean here is that when cases are received by PCOME, sometimes we find a mandible or a femur and that is all we find. We do not always have access to a complete skeleton. This makes cases incredibly difficult because we have so little to work with. Again, many of these individuals have become skeletonized before they are located meaning their was ample time for things like the natural erosional processes or animal scavenging to take place. Animal scavenging in particular has been noted by Beck and colleagues (2015). With this in mind we also need to take into account that animal scavengers can also commingle remains, making it near impossible to identify how many individuals are represented.

In general, the caseloads of forensic anthropologists at PCOME are skeletal (84%) followed by mummified remains (8%), with smaller percentages being noted as decomposing or burned remains (PCOME 2022). Of these individuals some but not all are noted as UBCs. This tells us that those skeletonized individuals that are UBCs are typically being found in the Arizona desert. These individuals could have been exposed to the desert and its elements anywhere from a couple of days to a couple of years (Anderson 2008) Those that have been exposed for months to years, will likely demonstrate some sort of weathering or animal scavenging (Anderson 2008). Given the desert temperatures and environment, individuals decompose much faster, meaning that often PCOME receives skeletal remains not fleshed remains. With this in mind scavenging of skeletal material is also something that happens, meaning we sometimes only get partial skeletal material (Anderson 2008; Beck et al. 2015). As time passes scavengers are likely to approach the remains and any other personal effects and move them or take them to another location (Anderson 2008). Needless to say, this makes it difficult to get a full understanding of who these individuals might be when a full skeleton cannot be acquired, and any personal effects are scattered elsewhere (Anderson 2008; Beck et al. 2015). Unfortunately, here there is very little that can be done because these individuals are trekking in dangerous and isolated corridors, so it is unlikely someone will locate them in time to prevent this from happening. The fact that these individuals are isolated and exposed to the elements is of course in itself another form of violence.

As odd as this might seem the topic of environmental preservation was actually indirectly discussed to during interviewees. For example, when interviewees talked about crossing, they described the environment they were in, which are certainly environments that can affect skeletal material differently. For instance, an individual discussed their thoughts on their surroundings while crossing.

> Spanish: *Era un calor insoportable, pero de noche nos agarraba un frio cruel. Así que de día sudando y de noche uno con frio. Y pues en caminar uno se encuentra cosas que otros dejan ya sea una chamarra o agua, comida… cosas por el estilo. Y uno no está en ese momento para ponerse sus moños así que si encuentras algo pues lo usas. Pero igual uno si va cargando pesado pues va uno también dejando sus cosas. Yo se unos cruzan por rio y así, pero para mí era más fácil por allá pero también tiene sus riesgos irme por donde me fui.*
>
> English: It was unbearably hot, but at night we were gripped by cruel cold. So during the day you are sweating and at night you are cold. And while walking you find things that others leave behind, be it a jacket or water, food… things like that. And you're not at that moment going to be picky so if you find something, you use it. But anyway, if you are carrying a heavy load, you are also leaving your things behind. Some people cross rivers and

so on, but for me it was easier there (crossing through the desert), but it also has its risks to go where I left."—Participant 19

This individual explained how the rapid changes in temperature during the day and night really impacted their traveling trajectories as well as what items they would bring. Something I did not expect to hear was that while they traveled if they found items from previous individuals, they would take them as needed. For example, if at night or even during the day they found a jacket or a bottle of water, if they needed it, they would just take it. Similarly, if what they were carrying got too heavy, they would just leave it wherever they were currently walking or resting. With this information in mind, with this specific interviewee I asked what types of things they would find, which led to a conversation about finding deceased individuals on their trek.

> Spanish: *¿Así es pues como le dije, uno encuentra hasta comida y pues el hambre pues lo agarra a uno no? A ver si también agua, a veces lentes, zapatos, cosas por el estilo. Hasta a veces pues desgraciadamente nos encontramos a compañeros allí que pues no, no aguantan no y pues el coyote o el grupo que vino antes pues los deja allí. Ni modo de enterrarlos, no estamos en la situación para enterrarlos como dios quiere. Pero yo me acuerdo si estaban así no más, pues uno le hace la lucha para darles poquito respeto y pues los ponemos bajo un árbol, y ponemos una crucecita donde podemos, o les ponemos una cobija… algo. Porque uno es humano no somos animales se debe de dar respeto*.
>
> English: Yea, so, as I told you, one even finds food and then hunger takes hold of one, right? Let's see you also sometimes find water, sunglasses, shoes, things like that. Sometimes, unfortunately, we find friends (fellow migrants) there who, you know, they can't stand it (died), and the coyote or the group that came before with leaves them there. There is no way to bury them, we are not in the situation to bury them as God wants. But I remember if they were just like that left out there, you fight to give them a little respect so we would put them under a tree, and we put a little cross where we could, or we put a blanket… something. We are human, we are not animals, we try to show them as much respect as we can.

This is not only interesting when thinking about the remains of individuals but also the potential of the multiple meanings certain objects might go through, not only through time but as different individuals pick them up. Something as simple as a blanket or a sweater may have crossed various different hands at different points in time. In the most general sense, it was used to keep warm, but any additional meaning to this may have certainly been different depending on the individual. This again is certainly something that was identified and thoroughly researched by De León (2015). I would argue here that even though the interviewees did not seem very interested in discussing the topic of

objects they carried outright when they discussed material objects matter surrounding the topic these types of conversations would happen. Does this mean then that what they carried with them was not important since they seemed to blow off the question? I would actually argue quite the opposite, again we see here how asking the question and contextualizing information can change the types of responses you get. When asked outright what they took with them they would simply list items and move on, but as they talked about the crossing proper, this is when they would identify more meaning in what helped them and even what they found along the way.

However, the main takeaway here is noting that taphonomic processes whether they be environmentally or socially influenced significantly impact the state of remains and ultimately how they are or are not identified and treated post-mortem. For example, the following section addresses the issue of skeletal samples that were unable to be identified (as of yet) and in an attempt to further provide data on who they are a histological approach was taken. However, taphonomic processes along with issues of storage significantly impact the ability for this to take place.

POST-MORTEM VIOLENCE

Identification and Repatriation

The complexities surrounding funding, personnel, time, storage, and various federal and state laws impact the ability for researchers to investigate of the remains of Undocumented Border Crossers (UBC). For example, PCOME currently has two board-certified Forensic Anthropologists on staff. These two Forensic Anthropologists in 2022 alone, received 173 UBC cases, this does not account for the additional workload of individuals that come to PCOME that are not UBCs. In 2022, this was an additional 171 cases, of which 121 cases were determined to be human remains of forensic significance (PCOME 2022). In summary, this means that in one year the Forensic Anthropologists at PCOME examined and created a biological profile for an estimated 344 cases to review (PCOME 2022).

With this information in mind, it should be noted that not all cases get a full biological profile. Given the state of remains sometimes only dental examinations are needed or there are only a handful of skeletal elements left of an individual to inventory and profile. Nonetheless this is a time-consuming task that also requires there to be foresight on where these individuals will be stored post-examination, which poses an additional problem. This means there needs to be storage at PCOME for an estimated 344 cases that are reviewed by the Forensic Anthropologists, in addition to those only viewed by the Medical Examiner, which is well over 2,000 in a single year (PCOME 2022). Again, the depth of analysis varies and so does the length of time an individual will need to be held in storage. Priority in storage is typically given to those cases reviewed by the

Medical Examiner since the bodies are typically still fleshed and need to be in a climate-controlled environment. Meaning those remains noted as UBCs get second priority for storage, a decision that is certainly controlled by the governing agencies not the Medical Examiner or Forensic Anthropologists. In the following sections (taphonomy) I will address why this becomes a larger issue especially when taking into account the theoretical implications surrounding structural violence. Knowledge of this background is important because it impacts the way UBC cases are handled and the type of workload, facilities, and management needed in order to conduct proper analysis.

The process of migrant identification and repatriation is quite complicated, and in most cases never actually happens. Various works by Beatrice and Soler (2016), Beatrice et al. (2021), Soler et al. (2022), Bird and Bird (2022), Martínez et al. (2014), and Reineke (2018) highlight the various complications. These complications range widely from finding remains, processing remains, conducting a biological profile, proper identification, storing remains, negotiation with consulates, and funding of the repatriation proper (Doretti et al. 2017; Gocha et al. 2018; Kaplan et al. 2022). Environmental processes also are a factor, as with more that time passes remains are exposed to the elements they are not just impacted by the weather, but also by the local wildlife (Anderson 2008). Scavenging by animals reduces the availability of remains, and therefore evidence, of an individual, making potential identification difficult. Oftentimes this results in circumstantial identification being made by using items that these individuals carry, such as identification cards, photos, clothing, and cellphones (Anderson 2008; Gocha et al. 2018).

In order to encapsulate all these factors, PCOME Forensic Anthropologists have devised innovative methods in order to identify as many individuals as possible. These include: creating cultural profile, take a missing person's report from families of foreign nationals, share data with other agencies, collecting skeletal data systematically, sharing geolocations, consulting a cultural anthropologists in seeking missing person information and in comparisons to descriptions of the dead, explaining all aspects of the identification process to family members or representatives, develop a Unidentified Release protocol (URP), the use of the national Missing and Unidentified Person System (NamUS), creating a Spanish version of NamUS so that family members will be able to read *and* understand the website (Anderson and Spradley 2016).

PCOME has certainly taken all steps that they possibly can in order to address deficits. The PCOME combines the different avenues to attempt identification including: looking at personal effects that individuals were found with (i.e., phones, identifications cards), looking and comparing at dental records or medical records of the missing (provided by families), location where individual was found deceased, DNA, mtDNA photographs, thumb prints, tattoos, and even collaboration with other medical examiner offices in different states (Gocha et al. 2018; PCOME 2010; Reineke 2019; Soler et al. 2019). Another important step being taken is the development and working relationship

between local NGOs (Anderson and Spradley 2016; Reineke 2019; Spradley and Gocha 2020). Given that some family members are justifiably concerned of working with governmental agencies, NGOs provide many family members with a safe space to report the missing and provide genetic information, dental records, and photographs that aid in the identification process at the medical examiner level (Anderson and Spradley 2016; Gocha et al. 2018; Reineke 2019; Reineke and Halstead 2017).

These bodies, however, tend to then find themselves in limbo (Gocha et al. 2018). More importantly, more these individuals who experienced structural violence in life, are actually still experiencing a type of violence it in death. This post-mortem structural violence happens from the time of their death, being out and exposed to the elements (Anderson 2008; Reineke 2019; Soler et al. 2019) and is followed by the waiting that these bodies experience before they can even be analyzed.

As previously mentioned, PCOME is loaded with hundreds of cases per year, not just cases regarding UBCs but also that of American born nationals (PCOME 2022). Priority of analysis is typically given to the cases for American born nationals followed by UBCs. So, what happens in the interim? Well, these individuals need to wait, and they do so by being stored on an outside storage facility on PCOME premises. When individuals are analyzed, there tends to be quite a bit of information missing making any type of identification near impossible (Martínez et al. 2014), despite the methods outlined above. If these individuals do not have any type of additional information that can aid in their identification, they are once again stored and on hold until something can be done. If time passes and identification is not possible, PCOME runs into the issue of space. There is no slow down on UBC cases, which means that sadly the reality is that the facilities run out of space. This then causes an issue of priority in terms of proper climate-controlled storage and in accessibility to funding in order to continue proper storage or future analysis. Unfortunately, UBCs are in the back end and of least priority in either of these instances. However, it should be noted that forensic anthropologists at PCOME take as many additional steps as possible to ensure some type of identification analysis can be conducted (Reineke and Halstead 2017). For those noted to be "short-term" unidentified, they are stored on premises, for those noted as "long-term" unidentified, unfortunately they are released to the Public Fiduciary (i.e., a county official who is not responsible for the skeletal material; Reineke and Halstead 2017). Again, due to time constraints and funding, oftentimes continued effort for analysis is prioritized to those "short-term" unidentified individuals that are still on premises (Reineke and Halstead 2017).

In places like Texas, in the past individuals were simply buried in cemeteries with unmarked graves because there were no formal systems in place to aid with identification (Gocha et al. 2018). It was not until Operation Identification in 2013 was formed that these unnamed individuals were addressed and given validity and importance (Gocha et al. 2018). Operation Identification (OpID) is comprised of a forensic anthropology community

engaged in humanitarian issues, specifically with those issues regarding the unidentified on the US/Mexico border. Operation Identification aims to give names to those UBCs who were interred without a name in a cemetery located in Brooks County (https://opid.wp.txstate.edu/). The efforts are spearheaded by Texas State with additional support from South Texas Human rights Center, Equipo Argentino De Antropología Forense (EAAF), and volunteers. The continued erasure of these individuals is problematic given the erasure that they are already experienced in life (Green 2011). The dedicated team of OpID focuses on the ongoing structural violence experienced by these individuals (Kaplan et al. 2022). At PCOME we have an issue with storage, whereas in Texas we have the issue of individuals being buried without a name and without any attempt of identifying who they might be or even a basic biological profile (Kaplan et al. 2022). Storing these individuals improperly and interring them without a name are both equally as damaging because there is a form of erasure that happens here. Efforts by groups like OpID and the forensic anthropologists at PCOME are actively attempting to mitigate this type of erasure.

It should be noted however, that PCOME has had success with positive identification (Beatrice et al. 2021). With all of these efforts being made individuals are being given back to their proper families. However, this process of repatriation can take quite a bit of time, given that there are various legal and international channels to go through (Gocha et al. 2018; Kaplan et al. 2022). While there is concerted efforts by Forensic Anthropologists, medical examiners, cultural anthropologists, and NGOs, it is ultimately up to consulates and other legal factors that can either prohibit or facilitate repatriations to return the remains of individuals to their home countries (Kaplan et al. 2022; Martínez et al. 2013; Reineke 2019; Spradley and Gocha 2020). The entire purpose of DNA analysis and proper identifications is to get these individuals back to their country of origin and to their families. Within PCOME there is a system in place for consulates to come in and discuss those individuals that have been found (Reineke and Halstead 2017). The longest standing consulate partnership is with the Mexican consulate and typically what happens is that there is a meeting with the forensic anthropologists, the Colibrí Center, and of course consulate representatives (Reineke and Halstead 2017).

During these meetings the consulate will check names in their database systems and provide circumstantial evidence (such as information on tattoos, clothing and so forth) and compare that to individuals found and analyzed by PCOME anthropologists, as well as those reported missing by family members to the Colibrí Center. Assuming all goes well and there is a positive identification, there is still the lengthy process of actual repatriations. The process of payment and legality has its own convoluted system in place that can last months to years.

To take this a step further as researchers and for those in humanitarian work in this area, it is important to acknowledge that a lot of the families who have missing or deceased individuals are actually in vulnerable positions themselves (Anderson 2008).

This makes it very difficult to report someone missing or to seek services that may help find their loved ones, especially if these services are tied in some way to law enforcement (Anderson 2008; De León 2015). The structure of violence clearly continues on past the death of these individuals not only in terms of identification and repatriations but also in the lack of space, funding, and storage (typically cardboard boxes and plastic bags; De León 2015). The overall lack of governmental support, especially through funding, makes it very difficult for scientists to help in the process and have the proper tools and time for analysis, storage, identification, and repatriation.

Histological Preservation

Poor preservation of samples made the intended histological analyses impossible to conduct. Prepared samples displayed pronounced Wedl tunneling indicative of fungal or bacterial intrusion (Trueman and Martill 2002). Wedl can be caused by bacteria or fungus; the exact etiology is still unknown (Jans 2008; Trueman and Martill 2002). Once the bone is exposed it can take 2–3 weeks for the bone composition (i.e., osteons) to be altered (Jans 2008). Jans (2008) notes different types of Wedl tunneling, each of which is caused by different factors. These different types discussed by Jans, as well as Trueman and Martill include Type 1, Type 2, and Hackett tunneling (Jans 2008; Trueman and Martill 2002). Type 1 (most common type) and Type 2 can be differentiated based on diameter size of tunneling, and Hackett tunneling is differentiated by being more superficial. There are certainly more variations of Wedl tunneling, but these three in particular tend to be the most common throughout the literature so have been highlighted here.

While this was certainly an unexpected outcome it did lead to a new line of finding, specifically how skeletal material may have contracted Wedl tunneling in the first place becomes central to the discussion. This type of tunneling, as mentioned earlier, can occur for various reasons but more specifically can be caused by a bacteria or fungus post-mortem, not ante-mortem. Factors such as environment, whether the remains are fleshed, exposed to water, moist when stored, or in a moist environment can certainly impact the likelihood of skeletal remains having Wedl tunneling. Since remains were found exposed to hot, dry and desert like conditions discussed above, it is most likely that this histotaphonomic alteration was related to the post-mortem storage of remains. At PCOME, especially in 2019 when I went to conduct research, there was a serious issue regarding storage of the UBC remains. The reality is there was hardly any storage space, so calls needed to be made about what was placed where and for how long. The solution at the time was to get an external storage container that would primarily contain the mostly skeletonized remains of UBCs. The individuals were put into bags and labeled and then placed in carboard boxes, again with proper labelling in place. The bigger issue here was that the storage unit did not always have function air conditioning, meaning that the remains were exposed to high temperatures. If the skeletal remains were moist and in

plastic bags/containers in any way this would obviously create a less-than-ideal environment for long term storage. This storage could have invertedly caused bacterial damage to permeate the bone tissue. However, additional options given time, space, and funding severely limited the possibility for ideal storage. In 2019, PCOME was actively trying their best to find a more sensible solution that would protect the skeletal material. As a reminder these remains are kept as long as possible in hopes that they are able to be given back their families, however, this was not always the case, so there was certainly a need to be realistic about how long these remains could stay (Reineke 2019). Unfortunately, due to space concerns many times individuals who have not been identified end up getting cremated as a space saving measure (Reineke 2019). The reality is funding and space are a very real and important concern, especially with this population.

Post-mortem care becomes vital not only for skeletal analysis and histological analysis, but also to maintain the dignity of the deceased. The various forms of violence experienced by the individuals in this specific sample, does not only occur during their lifetime and as they die in the desert, but it can continue on even after death. The presence of Wedl tunneling in this sample means more than just a disruption of the osteons on a rib sample. It indicates a body that has been exposed to the elements and has been in an environment conducive to bacterial or fungal intervention. This is part of the process that UBCs go through that is not often discussed given that the priority is in identification and repatriations. However, the reality is a majority of these individuals cannot be identified so every tool we have available should be used in order to gain a biological profile that can aid as much as possible in this process. The presence of Wedl tunneling is just one form of evidence suggesting that the treatment and preservation of these bodies needs to start becoming a priority. As previously noted, PCOME has and continues to engage in research as a means to find ways to properly store and protect these remains (Reineke 2019). However, funding and time once again plays a vital role here. Forensic anthropologists at PCOME have to work with what they have and often times this is not enough to properly store and preserve these individuals.

LOCATIONAL DATA OF CROSSING

As addressed in Chapter 8, discussion of location data, especially as it pertains to crossing the US/Mexico Boarder is complicated. While the data on crossing and where most fatalities occur is certainly important, this also opens up the ability for government agencies to know where to look for these individuals. I would argue that overall law enforcement (i.e., border patrol) is already well aware of the primary locations that individuals take while crossing, but that there is risk in revealing locations of crossing, as they have over time become locations where sanctuary can be found in terms of water stations or food stations. Even with this said Humane Borders (i.e., Fronteras Compasivas) does have a map and information on water stations, though as of May 2024

the live map noting water stations is no longer available (Humane Borders 2024). However, individuals who want to donate to support a water station are certainly allowed to do so. Funding provided by donors is used for water, fuel, flags, and other supplies to maintain the station in the Arizona desert. These locations have been saving for individuals who are crossing and have run out of food and water. However, even as of late these lifesaving stations have come under attack (Solis 2023). There are constant reports of border patrol, private landowners, or simply disgruntled US citizens who disagree with the intent behind these water stations and simply destroy them or remove them completely (Associated Press 2023; Solis 2023). This has occurred in Arizona, Texas and California (Goodman and González 2023).

This is just one example of the continued issues facing a lot of these UBCs attempting to cross and merely trying to survive the harsh conditions. It seems to this day any type of humanitarian aid is also confronted with various barriers in aiding these individuals (Associated Press 2023; Solis 2023). This research acknowledges these efforts and as a means of respect and continued privacy, it seems more pertinent for the NGOs and humanitarian organizations to share as much information as they feel comfortable without the intervention of researchers such as myself. Instead, I wish to utilize the locational data in this study in order to delve what their lives were like in their home countries. To reiterate this research focused on the countries of El Salvador, Guatemala, Honduras, and Mexico, given that these are the locations where we primarily see individuals from when they are detained or found deceased in the US/Mexico border. We have in fact confirmed though data from PCOME and Colibrí, that this is in fact very much the case we do see individuals primarily hailing from these four countries. Work by Beatrice et al. (2021) also confirms these location findings. However, interview data was slightly different, we see that a lot of individuals were from various states in the country of Mexico. This is most likely due to the fact that I was only interviewing individuals in two very specific locations, Vallejo, California and Fresno, California. Interviewees extrapolated on the reason they chose these locations (primarily) was because they already had family or friends working in the area, so they had a safe place to stay. As a researcher what this means to me is that I was going to find individuals from the same areas in these locations because they want to stay together for safety. Perhaps if I had interviewed, for example, in San Diego I would have interviewed a community of individuals form Guatemala or El Salvador. The truth is that individuals from certain countries do tend to want to stick together as a means of support, which is completely reasonable, so I would posit to say that if I had interviewed in other locations and maybe even other states, I would have had a bigger breadth of nationalities present in the interview portion of the research. The experiences may have also been different since in different countries we are dealing with different political and social issues. Nevertheless, I feel the data presented does go into a deep dive of the lives these

individuals led and given they were in the same country it was also interesting to see how each state and even city managed basic care and nutrition.

As a last point on locational data, I would be remiss to exclude conversation regarding individuals identified on the Tohono O' Odham Nation Land. The members of the Tohono O' Odam Nation are part of a federally recognized tribe that historically inhabited Sonora, Mexico, up to central Arizona (just north of Phoenix; Tohono O'Odham Nation 2016). Needless to say, the US/Mexico border has severely impacted the tribes access to their ancestral land and more so has caused various issues regarding the issue of UBCs. For example, as we see with PCOME data several individuals are found deceased on Tohono O'Odham Nation land. Additionally, individuals part of the nation have simply been walking or on their land and have been arrested by mistakenly taken for someone who is trying to cross the border, when in fact they are just walking on their own land (Austin 1991; Heidepriem 2015; Marak and Tuennerman 2013; Ozer 2001; Tohono O'Odham Nation 2016). The Tohono O'Odham Nation is a sovereign nation, meaning that the US Border Patrol, legally should not even be on their land, however, this line is often times blurred given "safety concerns" of UBCs crossing over to the Untied States (Tohono O'Odham Nation 2016). The Tohono O'Odham Nation has continued to fight battles for accessibility to their own land with the US Government, an issue that is larger than the scope of this project. I would recommend the interested reader to visit the Tohono O'Odham Nation website to find out more on this topic (http://www.tonation-nsn.gov/). Out of respect for the sovereign nations privacy and to allow them to speak on their own behalf this research did not and will not go into depth on all the issues concerning their interactions and advocacy work regarding the issue.

OVERVIEW OF COUNTRIES

This research aimed to look at four different countries Mexico, Guatemala, El Salvador, Honduras, and Ecuador (Beatrice et al. 2021; PCOME 2018). These four countries are the countries we typically see UBCs hailing from, specifically in PCOME which is located in the state of Arizona. This data is substantiated by who we are seeing at PCOME as well as those individuals that Beatrice et al. (2021) was able to observe. In my own skeletal research, I was able to identify similar trends in regard to the place of origin of these deceased individuals. This is of course not an oddity given that both Beatrice et al. (2021) and I were working with skeletal data from PCOME. However, I do acknowledge that the interview data is slightly different since I engaged with individuals in the state of California, whereas the PCOME data is from Arizona. However, this is not altogether uncommon, in fact it is quite frequent for individuals to travel from border states and end up elsewhere. What I want to highlight here is that in interviews all individuals were actually from various regions of Mexico. I did not interview anyone from Guatemala, El Salvador, Honduras, or Ecuador. The fact that I was only able to

interview individuals from Mexico may very well have been due to the area I was conducting interviews in. A lot of the interviewees actually knew each other from back home and when they came to the US, they very intentionally chose to live near each other for safety and comfort. So, this is altogether not rare to see with these types of groups.

Speaking skeletally, the data from the research conducted by Beatrice et al. (2021) is very similar to my own, which again arguably has to do with the fact that both of our data sets were primarily from PCOME. We both see that skeletally these individuals were stressed for a prolonged period of time. Beatrice et al. (2021), as discussed above was also able to acquire skeletal data from Texas, however for my own work, I only worked with Arizona skeletal data. While my own findings are certainly not novel, they do serve to corroborate the research from Beatrice et al. (2021) and others who have been vocal about the impacts structural violence can have emotionally and physically to these migrant groups (Anderson 2008; Anderson and Spradley 2016; De León 2015, 2024; Doretti et al. 2017; Gocha et al. 2018; Reineke 2022, 2013; Reineke and Halstead 2017). At a wider scale, my own research did not simply stop at skeletal evidence; I also sought to understand how the individuals that had crossed successfully would tell their own stories, rather than letting the bones of those who died tell their stories. When I did this, I was not able to get the stories from those who came from Guatemala, El Salvador, Honduras, and Ecuador. However, I was able to go more in depth on the stories of those who came from different areas within the country of Mexico. Something that stood out significantly from these interviews is that even though these individuals might hail from the same country and even the same state or city, their experiences are different depending on their social status, economic status, and even if they are of a darker skin color. Those interviewees who identified as *indígena* (indigenous) spoke of the continued racism among Mexican citizens, which made it harder as a person with darker skin to ever succeed financially, since socially they were discriminated against. It is this detailed information that the skeletal record alone would never have allowed me to know or even begin to understand. Which is why I firmly believe that skeletal data, especially of this sort, should be viewed ethnographically as well or at the very least be accompanied by interview data. The ethnographic and biographical research is certainly there, but often times it lives separately from skeletal data, here I think I make a great argument on the benefits of using this data in unison (Chacon 2021; De León 2015, 2024; Hernandez 2018; Zamora 2022).

OSTEOLOGICAL PARADOX AND ENGAGING THEORETICAL PERSPECTIVES

This review of skeletal material would be remis to not account for or discuss the concerns regarding the osteological paradox. As mentioned throughout this research the main focus of UBCs and UBC studies tend to be in a forensic context, though I would argue this is certainly changing (Beatrice et al. 2021; De León 2015, 2024; Fowler 2004; Reineke 2019; Soler et al. 2022). The primary goal of this forensic research is identifying these

individuals and giving the remains back to their families. In delving into forensic literature something we are constantly reminded of is how the osteological paradox comes to play in many of these situations and how interviewees were actually able to shed light, unknowingly, on this very issue. In order to address these pitfalls of interpreting data from skeletal assemblages, Wood et al. (1992) identified three challenges to the interpretation of health from mortuary samples. These include demographic nonstationary, selective mortality, and heterogenous frailty (DeWitte et al. 2015; Wood et al. 1992). Here I will very briefly describe the three concepts and extrapolate how they fit in within this research. For more in-depth discussion on this topic, see Dewitte and Stojanowski (2015), Wood et al. (1992), Wissler and DeWitte (2023), and Wright and Yoder (2003).

The first of the pit falls is demographic non stationarity meaning that a population is never static, it was a long-held assumption in bioarcheology that populations more or less stay the same, but we know now that is not the case (Gilchrist 2000; Goodman et al. 1988; Sofaer 2006). In fact, we know that populations can and do change often, which at its core means that we need to be very cautious when attempting to reconstruct the lives of individuals through their deceased populations at a specific location (DeWitte et al. 2015; Wood et al. 1992). Variation exists through populations, and it should be taken into account when identifying skeletal stressors and diseases in individuals. The second pit fall is selective mortality which reminds us that our data is coming from samples of those who died, otherwise known as a biased sample representation of the living populations (Wood et al. 1992). The third concept is heterogenous frailty pinpoints the fact that every individual will experience a stressor or a disease differently. For example, tuberculosis might impact two individuals that live in the same town very differently depending on that person's health previous to having tuberculosis as well as their accessibility to proper healthcare. We cannot and should not assume that a disease will impact people equally, because we know that this is in fact not the case (DeWitte et al. 2015; Wood et al. 1992). These three concepts help us understand that we cannot interpret skeletal markers of stress or disease as direct gauges of a population's health or mortality. For instance, if an individual shows LEH, PH, CO, and fractures one would assume that this individual had very poor health. However, what Wood et al. (1992) posit that this individual may have actually been quite healthy and had may have had access to enough a bit of care to have survived long enough for the disease or stressor to have surpassed the soft tissue in order to impact the skeleton. This process does not happen in a couple of hours or weeks, it actually takes months if not years to fully show itself. This also underscores that the individual needed to have suffered from the disease, condition, or stressor long enough for us to be able to see it.

These concepts are particularly relevant when interpreting data from this study sample. As a reminder we are looking at individuals from Mexico, Guatemala, El Salvador, Honduras, and Ecuador (that we know of of). Here we hit at our first point which is demographic nonstationary. The individuals at PCOME are not only from various

countries but also within these countries they come from a plethora of locations, social statuses, societies, and geographical environments, and condense over various temporal periods How one group or even person reacts to a stressor varies wildly with these individuals, especially since we don't always necessarily know where they are from. Additionally, when we bring in selective mortality, we are again reminded that we are looking at the remains of those individuals who were not able to cross over successfully. These individuals were found deceased on route to the US and while many of the causes of death can be due to dehydration, hypothermia or direct physical violence we do not know any pre-existing conditions or the situations that may have led them to meet an earlier demise versus others that crossed with them. The third concept hidden heterogeneity hits this point head on, because we don't necessarily know the stressors or lives these individuals led prior to crossing. We can certainly look at their skeletal remains and look at LEH, CO, and PH and note that they had stressors, but we don't know the details of the stressors or how these came about. Those found deceased may represent those that already had differentially poor health.

However, in asking individuals in similar situations, specifically the interviewee UBC that did cross successfully, we can begin to build a better picture of the circumstances that many individuals may have found themselves in prior to crossing, during crossing, and after their crossing of the US/Mexico border. While skeletal remains alone paint a picture of continual suffering, pain, health disparities, and loss, the osteological paradox and interview data allows us to see various alternative interpretations particularly that of resilience.

In order to engage with these types of interpretations we also need to go beyond the osteological paradox and also include in our interpretation's theoretical frameworks such as life course theory, embodiment, and personhood (McFadden and Oxenham 2020). Life course theory considers an individual's life throughout their lifetime not just a specific point in time

Life course theory also emphasizes that even within an individual life they go through various social, environmental, and political changes (Bynner 2016; Elder and George 2016). These changes ultimately also impact how their bodies engage and react to external and internal stressors (Agarwal 2016; Bynner 2016; Elder and George 2016; Gilchrist 2000, 2008; Mayer 2009). Interviewees shed light on this by giving us insight through their different life stages, beginning in childhood to adulthood. It was through this interview that we are able to clearly see how roles change as they get older and how they can become gendered which then leads certain groups to be more apt to experience specific kinds of stressors over others. This can then aid us in having more adequate interpretations of what we are seeing skeletally since we are able to also see culturally and socially what is actually happening or what could potentially be happening.

The second theoretical concept that helps us in understanding the interpretations we make skeletally is the concept of personhood. To reiterate from the previous chapter addressing this concept, personhood is something that is constantly negotiated in someone's life (Dornan-Fish 2012; Fowler 2016; Strathern and Stewart 2011). In archaeology, and I would argue in bioarcheology, we see people or "persons" as situated in a series of social interactions, which ultimately lead to an idea of embodied person "hood" (Clark and Wilkie 2006; Meskell and Joyce 2003). In other words, within the same time frame, a person can be seen, identified, and even feel different depending on whom they are with, what they are doing, or where they are. While personhood changes throughout time, this specifically illustrates how at a given point in time there can be different iterations of self as well as a constant negotiation of what the self is (Fowler 2004, 2016). In short, who we are and how others perceive us is a constant negotiation and always in flux (Fowler 2004, 2016). Individuals are not static, and how they reach or interact with things such as stressors or disease is not the same throughout their lifetime, this can actually change given what point of their life they are in. During interviews I was able to see how a majority of my interviewees had begun having access to medical care once in the US. They certainly were still seen as outsiders if you will, but they had something that they did not have before, which was consistent and reliable medical care, which is not something they had before. So how their bodies reacted to certain illness was different than how they would have reacted or been cared for back home, meaning that their bodies are going to react differently. If we continue with this frame of thought, we can then reach the theoretical concept of embodiment theory which analyzes the experience of lived bodies (Meskell 2000; Strathern and Stewart 2011). As a refresher in archaeology and bioarcheology we see embodiment as an examination of traces of bodily practices, idealized representations, and evidence of the effects of habitual gestures, postures, and consumption practices on the physical body (Hollimon 2011; Joyce 2005). This perspective represents an experience where natural, social, cultural, and physical phenomena interact with one another to produce what it is we see in the "social skin" (Fisher and Loren 2003; Meskell 2000; Strathern and Stewart 2011). Embodiment also acknowledges the different identities and phases that a body can go through given different realities throughout life (Fisher and Loren 2003). A life which is in fact socially constructed and ever changing, making it oftentimes difficult to discern (Fisher and Loren 2003). This again brings us back to these other ideas of individuals and populations as a whole never being static but rather being in continual stages of change.

As we can see here the osteological paradox and the theories of life course, personhood, and embodiment all work in unison to formulate a more holistic picture of who these individuals were and are in the present day. It impacts how we see them, understand them, and are ultimately able to help in their advocacy, though I would proceed with caution here because these individuals do have their own voice and agency.

I feel that it is our job as researchers to provide the tools and language necessary to facilitate conversations, but, when possible, to continue and allow individuals to tell their own stories, because their stories are filled with information and interpretations that we cannot even begin to touch on. Through interviews I was able here to conceptualize and put into context what it was that I was seeing at a skeletal level. What I was seeing was individuals who had the wherewithal to encounter and live through various stages of stressors, disease, and even fractures and live through these experiences. Whether the lives they led through these experiences were happy or sad depends fully on the individual and it is not something I or other researchers will ever fully know. What we do know and can begin to understand is how survivors explain their own experiences in similar circumstances, since this is as close as we will be to understanding the lives of those that lived similarly but ultimately did not make it through their journey (De León 2024).

Unfortunately, skeletal data alone cannot tell us about the lives these individuals had. However, in taking theoretical perspectives into account, data from living migrants, as well as the osteological paradox we can begin to build that framework that allows us to have interpretations that more accurately represent the actual lived experiences of many of these individuals. Skeletal data was not able to tell me the details or stories behind some of these stressors, speaking to the individuals did. Likewise, an individual was not able to fully extrapolate on every single stressor they encountered and how it impacted their bodies, the skeletal data did that. The reality is we need both in order to understand the dimensionality and various iterations and interpretations of what is happening at the US/Mexico border as well as the often-invisible forms of structural violence lurking in the shadows that is what ultimately drive many people to flee their homes. Additionally, this research showed us that even the material objects and various locations in which people travel also impact their stories and the experiences that they have, even if they at first glance do not realize their importance.

BELONGINGS CARRIED

The objects or belongings that many of these individuals carried as well as the locational data addressing areas in which they lived, crossed, and even died help in informing the narrative of the lives led by individuals who cross the US/Mexico border. Chapters 7 and 8 of this dissertation emphasized the often complicated meaning behind objects carried by those crossing the border. De León's work in 2015 was truly groundbreaking in that it not only discussed the material items collected and identified with those deceased on the border, but it also delved into the actual acquirement of items and the often-layered meanings behind them. The various layers of meaning behind these objects was also extrapolated in De León's work through his own participant observations with individuals he befriended on the US/Mexico border (De León 2015). These friendships allowed De León to understand how some objects are just used for utilitarian purposes (i.e.,

water, food, first aid), others are used to help camouflage and protect individuals from the elements (i.e., camo jackets, boots, handkerchiefs), some objects were used for communication (i.e., cellphone, map, list of numbers), and some sentimental or religious value (i.e., photographs, rosaries, crosses, drawings; De León 2015). While the items were certainly seen in PCOME with various individuals who were found deceased, I found that when directly asking individuals in interviews about this the responses are not what was expected. Most individuals seemed to brush off questions regarding material objects they carried or were confused on why this question was relevant to my line of questioning.

I would like to note here that when De León did this work, he was asking individuals who were presently at the border or had just crossed. For these individuals the memory and sentiment of these items was very much alive and present since this was something that was actively happening. The individuals I interviewed had crossed within the past 20 years, meaning that sometimes their memory of this time faded, and much more so the emotions attached to these items when crossing. I was fortunate to have some of these individuals even remember some of these items, so if I had the occasional individual tell me the sentimental or deeper value of an object, I considered that incredibly rare. The truth of the matter here is that while these objects are important memory fades and even more so when the events leading to these memories can be quite traumatic to these individuals. We now have more literature than ever from researchers and even individuals themselves who crossed talking about this trauma and the various and ever-changing meanings behind the items they had while crossing as well as the changing circumstances behind why they decide to cross in the first place. Literature by Luis Alberto Urrea and Jaiver Zamora have provided vital contextual information of the dangers of crossing as well as the associated childhood and adult traumas that are perpetuated through these crossings (Urrea 2004; Zamora 2022). More so, they touch on the often-uncomfortable conversation of how the US played a major role in the need for individuals to cross the US/Mexico border. This line of research has expanded from literature alone, we now see documentaries and films such as *Under the Same Moon* (*Bajo la Misma Luna* 2007) and *Who is Dayani Cristal* in 2013 (*Al Jazeera* 2024; Lombroso 2022). This uptick in media presence has certainly aided in shedding light on this humanitarian issue, and more broadly educating the larger public of the larger structures at play that have actually been the ones to truly force these individuals into crossing the US/Mexico border.

CURRENT POLITICAL STATE

The reality is that laws change, which as an unintended consequence makes it so people and the ways that they see their lives and the potential opportunities in the US also change. In effect, this also makes it so the ways in which they decide to leave and immigrate change as well throughout time. How someone crossed the US/Mexico border in the 1960s versus 2024 will not be the same at all; it will vary depending on new laws

in place as well as the public sentiment on this notion of immigration. However, this research has shown us that what does not seem to change is the hidden structures in place that are the root cause for this need to leave your home in search of this proverbial "better life," which we have also seen here is not necessarily always the case. Sometimes individuals find it more difficult to live here and see living and working in the US as only temporary. While research has continued to seek understanding on why and how people decide to leave, I would argue that research and media attention has justifiably begun to highlight the stories of certain individuals or certain aspects of crossing in order to inform the larger public about the situation at hand (Chacon 2021; De León in 2024, Zamora 2022). There is an expansive literature source on the topics of crossing the US/Mexico border, living in the US as an undocumented individual, as well as literature that addresses what it is like living in various Latin American countries such as El Salvador, Guatemala, Honduras, and Mexico, and the various factors leading someone to have to leave. I would encourage the reader to focus on authors with a Latinx background, because it is important that we continue to amplify these voices and allow for individuals to share their own experiences through their memories and voice. The Humane Borders (Fronteras Compasivas) website contains ample resources for literature written by Latinx individuals (https://www.humaneborders.org/recommended-reading), documentaries such as *The Long Walk of Carlos Guerrero* (https://www.humaneborders.org/new-page-template), and short stories written by individuals who have crossed (https://www.humaneborders.org/myths-about-migration).

The books mentioned above encompass the breadth of realities that individuals encounter. Javier Zamora (2002) provides a unique perspective to life in El Salvador in his childhood, and how poverty and political unrest leads to the hard parenting decision of having to leave and soon after retrieving your child to join you in the US once you have found a safe haven. This crisis of unaccompanied minors crossing the border has been highlighted extensively during the COVID-19 Pandemic and continues to be highlighted in the mainstream media (Reed 2024; Santana 2024). This issue continues to be highlighted even after the pandemic and again even though difficult to see and even comprehend, the reality is many parents are left with very little choices but to either cross with their children or like Zamora cross after their parents, alone. The recent work by De León (2024) highlights the unique social and contemporary political systems of border crossers today. The unfortunate reality is that people need to cross, and they need help crossing, so they need to have someone who is familiar with the terrain in order to help them cross, i.e., our coyotes. In his book he goes into depth on something, it seems a lot of people want to try to ignore, which is that people need to survive, they need to eat, and they need to provide for their families, and sometimes the way to do this is through becoming a smuggler or a coyote (De León 2024). Structural violence, I would argue, is the crux of this entire humanitarian crisis we are seeing, but De León (2024) shows us that

this structural violence beast actually has many forms, and in his book, we see how this plays out in the border specifically In this book, we hear the often pain truths that many of these individuals become smugglers out of necessity this need for survival that makes people go routes they did not think they would go, and the often-mental battle that follows making these decisions (De León 2024).

The work of Justin Chacon (2021) offers us an overview on the capitalist society that we live in and the colonial histories that played out in various countries, highlighting specifically its impact in Mexico. Chacon (2021) walks us though the impacts that the US had on labor in Mexico and how that progressed into the need for people to leave, given the poor wages and harsh working conditions. He follows this path to the various programs propagated by the US to invite foreign labor, such as that in the 1986 Amnesty Bill. This amnesty bill in particular once welcomed foreign labor, but slowly turned this foreign labor force into something to be criminalized and shunned (Chacon 2021). However, instead of delving full-force into the labor in the US, Chacon (2021) takes a step back and shows us how the country of Mexico continues to function in such a way that does not in any way allow certain individuals (in fact most individuals in Mexico) to ever prosper in various types of business ventures, because the structure at play will never allow that to fully happen. So, the inability for many individuals to prosper financially in Mexico, has been designed that way through years of exploitation and political strategies that serve to support a strong US economy rather than a Mexican Economy. We were able to see this frustration in this research through many of the individuals interviewed having to continuously send money to their families and even establish homes and various other properties. However, this is done with the knowledge that they have to continue working here in order to be successful in their home countries, which seems a bit backwards but is the unfortunate reality of many migrant individuals.

The issue of Undocumented Border Crossers is not something that is new. In fact, we have seen it play out time and time again throughout history and involving many other countries, not just Latin American countries. However, the COVID-19 pandemic impacted the world in a way that was unprecedented, and an unintended consequence of the pandemic was a spotlight was cast once again on the immigration crisis, specifically that occurring on the US/Mexico border (Gonzalez-Barrera 2021). This spotlight brought renewed media attention to the issue post-Trump presidency, which itself also shed its own light on the humanitarian issue. Arguably the Trump presidency era actually placed this situation in a very negative light (Castañeda 2017; Gramlich 2020).

The pandemic shed light not only on the immigration crisis but also humanized this for so many by emphasizing the continued mistreatment and separation of families at the border (Bryant 2022; Cheng 2018). This was done after previous years of a smear campaign brought on by a conservative Trump-era administration (Gramlich 2020). This campaign brought on narratives of these individuals being thieves and criminals that

should not be given a space in the US (Lee 2015). However, as we have seen clearly here and through the research identified by the previously mentioned authors, this is not necessarily the case at all. There certainly might be individuals with bad intentions while crossing, however, what we are actually seeing is a history of US economic and political involvement in these countries leading to impoverishment and violence which forces individuals to have to flee, coincidentally (or perhaps not) to the US (Comeforo 2007; Frank 2018; Holmes 2013).

Even with this history in mind, policy makers and NGOs continue to advocate and fight for individuals attempting to cross the US/Mexico border. I would argue that this issue has always been a partisan issue, however, the Trump administration certainly solidified the divide between liberal (pro-migrant) and conservative way of thinking (anti-migrant). While these partisan groups do not necessarily speak on behalf of their entire political groups the sentiment is enough to strongly impact public perception and into turn policy.

As of 2024, the Department of Homeland Security (DHS) has reported on the top nationalities of migrants who have attempted to cross to the US. Surprisingly, individuals from Mexico and Central America only represent 52 percent of this population whereas in 2024 they represented 97 percent of this population (Isacson 2024). A lot of factors could play into the decrease in these numbers including violence at the border, more protection at the border, policy changes and an increase in border protection and DHS funding (Isacson 2024; Ruiz Soto et al. 2024). Something interesting that I would like to point out here as well that is potentially impacting these numbers is that the country of Mexico is also buckling down on their own migration policies for those coming from Central American countries (Isacson 2024). What can be shocking to many people is that Mexico also has an immigration policy in place that apprehends individuals from countries such as Panama, Ecuador, and Venezuela. So, something else that might be happening to deflate these numbers is that these individuals that would be crossing the US/Mexico border are being detained a lot earlier in Mexico (Isacson 2024; Ruiz Soto et al. 2024).

While it seems that statistically these numbers at the US/Mexico border might be going down, I would argue that unfortunately they will not cease completely anytime soon. Within my own research and in speaking with those that were able to cross, there is still that sense of pain and turmoil from leaving their homes mixed in with the knowledge that going back is not really an option. They are aware that the same economic problems will follow them and now the situation might be worse, since they left and don't have as strong ties to the areas they were once from. I certainly do not hold the answer to this issue and how to stop immigration from happening, but I would suggest instead an alternative form of thinking; should it stop and do we actually want it to stop. Again, given the US history with these countries there certainly seems to be no initiative on our behalf to stop the structures that get this issue started in the first place. It seems that as a

country we are being reactive rather than proactive which in itself can bring forth its own set of issues (Ruiz Soto et al. 2024).

CONCLUSION

Typically, literature on UBCs has been highly forensic focused in nature. This is certainly understandable since the primary purpose tends to be in their identification and repatriation. Again, given the structural violence that these individuals have gone through in life, the hope is that in death they do not have to experience additional forms of violence. However, as a biocultural bioarcheologists there are more nuanced questions that are of importance. Our ultimate goal does include proper identification of these individuals, but it also involves understanding the structures in place that initially influence them to cross in the first place. It involves understanding the underlying history and intentions involved in skeletal analysis and how these are used to make interpretations. In working with our forensic anthropologist colleagues, we are able to paint a larger picture that skeletal analysis alone cannot give us. Soler et al. (2022) has provided these first steps in extending beyond biological profiles and identification. They have provided the framework to expand this work to include the structural violence in its cultural, health, social, and economic forms that has caused this humanitarian crisis to occur in the first place. This study sought to expand this approach through the integration of interview data from successful migrants and biocultural approach to skeletal and material analysis.

The unfortunate reality here is that it is quite possible that structural violence at its very core does not necessarily have an ending. However, we do see the media and researchers beginning to highlight and advocate for those individuals impacted by it. These voices have been amplified by allowing those directly impacted to speak for themselves, while also highlight the long often overlooked history of the US involvement in propagating these situations of individuals having to flee their homes in order to survive. So where do we go from here? Is this an issue that needs to be solved or are we still in the process of understanding what it is and its implications? I would argue here that the understanding of what structural violence is and who is behind it, is and should be a continuing discussion. Rather than trying to find an answer or solution, what this research has shown is that the primary thing that needs to be addressed, especially for these individuals experiencing it, is a way of healing. Our job as researchers is not just to seek answers or who are the perpetrators of this violence, but also aid those helping us make these discoveries on a path of healing (Salado Puerto et al. 2020; Ubelaker et al. 2020). Through the interview portion of this research and throughout this process in general I soon came to find that some individuals were on the path of healing while others were struggling with the realities that they encountered and continue to live through. Some individuals found healing through religion, others through sharing their stories, and others by giving back to their communities. One individual in particular spoke about

how in his town he and others who had crossed over to the Untied States started a small organization. This organization is funded by them and helps individuals int their town get basic necessities. For example, they have helped by school supplies for the kids of their town, helped purchase farming equipment for locals to start their own farms, and bought gifts for the kids of the town during Christmas time.

Unfortunately, some interviewees seemed to continue struggling with leaving home and what they had experienced. Some of the coping skills that they had were through drug use or alcohol abuse. They were open about their experiences and knew that this was not the path they should be on, but they were very open and honest about the fact that they were in emotional pain and felt lonely. Drinking or using drugs was really the only escape from their reality so they did this while also knowing that this could be a bad path to follow. I made sure to let interviewees know the resources available to them, however it was clear that there was inevitably a mistrust with anything government funded, and their preferences always lay in seeking help from non-governmental agencies. Throughout this process I also had several individuals tell me that this was the first time they had spoken about their experiences and that it felt good to get it out. For them once they spoke about it, it made the situation real, and they would often pause during interviews and would sigh and laugh and emphasize how they couldn't believe that had happened to them. The retelling of their stories certainly brought up some painful memories but also seemed to bring up fond ones as well, it brough up simpler and kinder times.

While the main focus of this research was to identify and understand the impacts of structural violence, the interview process allowed me to see that as a researcher I also need to account for how this will impact the individuals who actually lived through this type of structural violence. The reality is that for them (the interviewees) it is not always about trying to know who caused them this pain and how to take these groups or individuals down, instead it is about attempting to find happiness in even the most painful moments and trying to help those who are in similar situations. My reality as a researcher and theirs as being the individuals who experienced the violence is very different and I would argue equally as important. As a field we are certainly moving to a more proactive route in regard to understanding our roles not just as social scientists but as humanitarians as well as we engage in this work (Beatrice et al. 2021). Forensic anthropologists at the forefront of UBC research such as Dr. Bruce Anderson and Dr. Kate Spradley have also strongly advocated that we as a field also do our due diligence for this community (Anderson and Spradley 2016). It is not just our job to conduct biological profiles and identifications, in the process of doing this we also become responsible in sharing this information to the appropriate individuals and agencies to help the families of the deceased (Anderson and Spradley 2016). It is through open communication and treating this issue for what it is, a humanitarian issue, that as a field we can contribute to some sort of resolution.

The narrative in both forensic anthropology and bioarchaeology anthropology highlights the trials and tribulations that these individuals went through in order to have a better life. While this is certainly true, I want to challenge these perspectives and instead view these struggles as the strength and perseverance that many of these individuals have. Ultimately this skeletal evidence and interviews show us the raw resilience that so many of these individuals have and the positive outlook they continue to have even after all they have gone through. While the study of violence and pain can certainly be a hot topic, I would argue that changing that narrative to one of triumph can ultimately change the way in which this subject matter is addressed, and how these individuals are treated. Unfortunately, just bearing witness to human rights violations and seeing things only through the lens of a scientist is no longer enough and remains an active topic of discussion within the forensic anthropology community as well as the bioarchaeological community (González-Ruibal 2018; Hauser et al. 2018). It is in this manner that we will be able to take steps forward with positive and open lines of communication to continue tackling the issue of structural violence and take on a path of healing (González-Ruibal 2018). While this task isn't easy and will present with it its own set of challenges and uncharted territory, I would argue that this is certainly the path forward in our field of study.

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APPENDIX A

INTERVIEW QUESTIONS
(SPANISH AND ENGLISH)

Preguntas de la entrevista (60-90 minutos)

El orden de las preguntas puede cambiar para facilitar la conversación. Aquí se pretende que, si bien el entrevistador dirigirá la discusión, el entrevistado pueda extrapolar la información que considere importante o pertinente que no necesariamente haya sido solicitada por el entrevistador. Si bien las preguntas son sencillas aquí, se entregarán en un tono conversacional. Antes de encender la grabadora, les informaré que se encenderá con el propósito de crear una transcripción escrita, momento en el cual la grabación se destruirá permanentemente y confirmaré que tengo su permiso para grabar. Se habrá discutido el papeleo adecuado. y revisado por este punto.

*** Agradezca al entrevistado por aceptar reunirse para esta entrevista y pregúntele si hay algo que le gustaría preguntar primero, hablar o preguntar sobre algo. ***

1. ¿De dónde es usted originalmente (dónde nació y de dónde emigró)?
    a. ¿Su familia vive allí todavía o simplemente en el pasado?
        i. ¿Algún miembro de su familia nació en los Estados Unidos?

2. Cuénteme un poco de dónde es. ¿Cómo fue la vida allí?
    a. Lleve aquí a preguntas sobre: El entorno local, la economía / situación financiera propia, la geografía, la política, la violencia, la familia, la atención médica y la religión en el área.

3. ¿Vivió en esta área (en América Latina) toda su vida, o se mudó antes de decidir venir a los Estados Unidos?
    a. Si es así, cuénteme sobre eso.

4. ¿Puede describirme un día o una semana promedio en su ciudad natal, cómo fue eso?

5. Según lo que me dijo, ¿qué parte de eso o otras partes que no ha mencionado hizo que usted o su familia decidieran irse?
    a. ¿Hubo varias razones por las que se fue? ¿Que eran?
    b. ¿Fue esta una decisión tomada por usted o por usted?
    c. ¿Existe una tendencia o más bien un movimiento en su comunidad de personas que desean irse a otro lugar o específicamente a los Estados Unidos? ¿O fue esto algo poco común?

6. ¿Qué edad tenía cuando se fue?

7. ¿Se dio cuenta del riesgo que corría al cruzar la frontera? ¿Qué riesgos le preocupaban más?
    a. Si es así, ¿puede explicar el razonamiento detrás de ir de todos modos?
    b. ¿Por dónde cruzaste?

8. Una vez que llegado/a a Estados Unidos, ¿se quedo allí?
    a. ¿Si es así, por cuanto tiempo?

b. ¿Tenía familia o amigos, o hiciste nuevos amigos en este lugar?
c. ¿Qué hizo para trabajar?
d. ¿Qué estaba pasando por su mente en este momento? Se sintió seguro? ¿Feliz?

9. ¿Cuánto tiempo lleva en los Estados Unidos ahora?
    a. Mirando hacia atrás, ¿cómo se siente acerca de la decisión que tomó de irse?
    b. ¿Cómo cree que ha cambiado su vida viviendo aquí?
    c. Claramente, hubo razones por las que originalmente se fue, ¿siente que al estar en los Estados Unidos algunas de esas preocupaciones o temores se aliviaron, o cree que se encontró con los mismos problemas aquí?

10. Mientras estuvo en los Estados Unidos, ¿estuvo al tanto de lo que sucedía en su ciudad natal?
    a. Políticamente, culturalmente, fuerza laboral, medio ambiente… ¿estaban cambiando las cosas o igual?

11. ¿Valió la pena este viaje para ti? ¿Qué crees que cambió o se mantuvo igual para ti?

12. ¿Puede viajar de regreso a casa ahora?
    a. Si es así o no, ¿puedes charlar un poco sobre eso?
    b. ¿Siente que la situación económica, política, religiosa, sanitaria, etc. realmente ha cambiado en su ciudad natal desde que se fue?

13. Sé que le acabo de hacer muchas preguntas que ciertamente pueden haber desenterrado algunas emociones o sentimientos que no has experimentado en algún tiempo. ¿Hay algo que crea que debería saber que no hayamos cubierto?

*** Agradezca al participante y reitere el propósito de la investigación y nuevamente comparta mi información y déjele saber si tiene alguna pregunta o inquietud para que me lo haga saber. También me aseguraré de que se haya firmado toda la documentación y me aseguraré de tener su información de contacto. La información de contacto es para que pueda compartir mi investigación a medida que avanzo con mi proyecto. ***

Interview questions

Order may change in order to facilitate conversation. It is the intent here that while the interviewer will lead the discussion, the interviewee can extrapolate on information they feel important or pertinent that may not have been necessarily asked by interviewer. While the questions are straight forward here, they will be delivered in a conversational tone. Before starting the tape recorder, I will confirm with them that it will be turned on and that they are ok with this. Proper paperwork will have been signed and reviewed by this point.

*** Thank the interviewee for agreeing to meet for this interview and ask if there is anything they would first like to chat about or have be known. ***

1. Begin formal interview by asking:
    a. Where are you originally from?
    b. Is your family from this location as well?
    c. Did you all immigrate from that location or were some family members born within the United states?

2. Tell me a little bit about where you are from. How was life there?
    a. Lead here to questions about the local environment, geography, politics, economy, family, healthcare, and religion in the area.

3. Did you live in this particular area (in Latin America) all your life or did you move around prior to deciding to come to the United States?
    a. If so, why?

4. Can you describe to me an average day or week in your hometown what was that like?

5. Based on what you told me, what part of that, or other parts that you haven't mentioned made you or your family decide to leave?
    a. Were there multiple reasons why? What were they?
    b. How old were you at this point?
    c. Was this a decision made by you or for you?
    d. Was there a trend or rather a movement in your community of people wanting to leave elsewhere or specifically to the United States? Or was this something uncommon?

6. So, when you/your family decide to leave what steps do you take from here? Who do you communicate with? Is there already a system in place in your community or among friends and family?

7. How did you know where to go, was there a plan? A destination? I know certain times specific groups of people, depending on where they are from, have a pre-established community in the United States that can help them out. Was this the case for you? Or were you just going in blind?
    a. Did you decide to leave on your own or with a group?
    b. Who was contacted to help you on this journey?

c. What preparations were made?
d. Do you remember anything about the day you left? How old you were? How had you felt? What had you packed? Who did you say goodbye to? How did your family feel about the fact that you were leaving?
    i. What 'material' culture they left with initially can begin to be asked here?

8. So now, you are on your way, tell me a bit about how that journey went, what were your destination points that you had to get to for your journey? Did you stop anywhere in particular for a reason or you would just stop when you were tired?
    a. At any point did you have a guide/s (i.e., *coyote* or *pollero*)?
        i. If so, did these individuals change depending on region or area?
            1. Do you feel safe/comfortable discussing your interactions with these types of individuals?
9. Did you make any stops? How did you travel up to the border?
    a. Did you meet new people that traveled with you or you just thought were interesting?
    b. If you travelled with people did any of the people leave at any point in the journey?
    c. Any hiccups on your journey or was it pretty straight forward?

10. Obviously getting to the border is a journey on its own, but when you reached the border, what border town did you arrive to? How long did it take you to get there?
    a. Were there any final preparations you made?
    b. From when you started to this point was their anything I terms of clothing, food, money etc.…that you no longer had.
        i. Did you buy anything else, or you journey?

11. How long did you wait along the border before you decided to cross?
    a. Any special preparations or anything that happened during this time? Or was it calm?
        i. Was a "guide" present at this point?
        ii. Any new group members or were you on your own?
        iii. If you stayed more than a day at the border town, did you stay anywhere?
        iv. Did you communicate with your family letting them know where you were? Send them photos of you etc.?

12. So, the big day is finally here, how did you know which town your wanted to start from and how you wanted to travel?
    a. Any influence from family, friends, or a guide?
    b. Do you remember that day, things like what you wore, what was in your pockets, or backpack?
        i. A cellphone, religious items, phone numbers, currency, identification (both real and fake), photos??

13. Describe to me the route you took, where did it go by? I know this was not an easy journey, but is there anything in particular that stood out to you while you traveled?

a. How long did it take you to cross?
b. Did you cross successfully the first time around (i.e., not get caught by border patrol).
c. Were there any items you had to leave behind during your crossing?
    i. Was this done on purpose? Were some things too heavy to keep carrying? What was the reasoning behind that if you did or didn't leave things behind during your travel?

14. Needless to say, at this point you have been through a lot. How are you feeling at this point emotionally and physically after that journey you just went through?

15. Once you crossed successfully what town within the United States did you travel to?
    i. How long did you stay there? Was there someone waiting for you?
    ii. Did you communicate with you family you had made it safely?
    iii. Was this your destination or was there more traveling you needed to do?

IF this was their final stop skip to question 19.*

16. So, did you leave immediately or stayed near this border town for a little bit to get your bearings?

17. What was the journey like to your destination? Were you still scared?
    a. What and who did you have with you at this point?

18. Once you arrived at your destination did you end up staying there?
    a. If so for how long?
    b. Did you have family or friends, or make any new friends at this location/
    c. What did you do for work?
    d. What was going through your mind at this point? Did you feel safe? Happy? Like you would be, ok?

19. So how long have you been in the United States at this point?
    a. Looking back how do you feel about the decision you made to leave?
    b. Would you do it again?
    c. How do you think your life has changed living here?
    d. Clearly there were reasons you originally left, do you feel that being in the United States some of those worries or fears were alleviated or do you think you encountered the same issues here to?
        i. Was there any help be it health wise, financial, or in any legal sense for you here or did you feel isolated?

20. I understand that this might be a bit of a loaded question, but was it worth it to you? What do you think changed or stayed the same for you?

21. Do you get to travel back home now at all?

i. If yes or no, can you chat about that a little bit.
    1. Do you wish you can bring more of your family over?
    2. Do you feel the economic, political, religious, healthcare situation etc... has really changed in your hometown since you left?
    3.

22. I know I just asked you a lot of questions that may have certainly dug up some emotions or feelings that you have not experienced in some time. Is there anything that you feel I should know that we did not cover, or something you are rather I not share in my research that we have discussed that would make you feel uncomfortable or unsafe?

***Thank participant and reiterate the purpose of the research and again share my information and let them know if they have any questions or concerns to please let me know. I will also ensure all paperwork has been signed and make sure I have their contact information. The contact information is for me to share my research as I progress with my project. ***